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Analysis of Atmospheric Organic Aerosols by Mass Spectroscopy

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High resolution mass spectroscopy has been found to be a useful means of characterizing the organic fraction of urban aerosols. Quantitative accuracy, however, was limited, particularly for compounds of low abundance. Some ambiguities were found in the assignment of origins of ions formed in the mass spectrometer.

Compounds that were detected included phenols; aromatic carboxylic acids and, possibly, esters of these; and aliphatic dibasic acids. Evidence was found of several other difunctional compounds, including nitrate or nitrite species.

Strong evidence was found for the presence in some urban aerosols of compounds reported by others as products of the oxidation of toluene in smog chamber reactions. Less evidence was found for products formed by the oxidation of terpenes.

A few samples of automobile exhaust particulates were analyzed. The occurrence of benzoic acid and the benzoyl ion in mass spectra appear to be possible indicators of automotive contribution to the organic components.

Results for a large number of compounds are provided for 88 samples of aerosols collected at sites located in the greater Los Angeles, Seattle, St. Louis, and Denver areas.

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ANALYSIS OF ATMOSPHERIC ORGANIC AEROSOLS BY MASS SPECTROSCOPY

by

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ABSTRACT

High-resolution mass spectroscopy was shown to be a useful means of characterizing the organic fraction of urban aerosols. Quantitative accuracy was limited, particularly for compounds of low abundance. Some ambiguities were found in the assignment of origins of ions formed in the mass spectrometer.

Major constituents of fine particles in urban atmospheres are sulfuric acid or sulfates, and hydrocarbons. Other compounds that can be detected include phenols; aromatic carboxylic acids and, possibly, esters of these; and aliphatic dibasic acids. Evidence was found of several other difunctional compounds, including nitrate or nitrite species.

Strong evidence was found for the presence in some urban aerosols of compounds reported by others as products of the oxidation of toluene in smog chamber reactions. Lesser evidence was found for products of the oxidation of terpenes.

A few samples of automobile exhaust particulates have been analysed. The occurrence of benzoic acid and the benzoyl ion in mass spectra appear to be possible indicators of automotive contribution to the organic components.

Results for a large number of compounds are provided for 88 samples of aerosols taken at 11 sites.

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SECTION I

INTRODUCTION

The chemical characterization of atmospheric aerosols is of great importance in order to determine the sources and distribution of materials in the atmosphere, to elucidate the reactions that occur in the atmosphere, and to determine the hazards to health resulting from the presence of a wide variety of compounds in the atmosphere. Chemical compounds present in the atmosphere include both materials present in the gas phase and those present in liquid or solid aerosols.

Of the gaseous components, ozone, sulfur dioxide, nitrogen oxides, and gaseous hydrocarbons have been studied extensively.

The chemical composition of aerosols is of interest because of the common formation of such aerosols in urban areas, with accompanying decrease in visibility, and because of the ease with which such aerosols are respired into the lungs.

Most studies of atmospheric aerosols have been concerned with physical properties and with the atomic composition. A number of methods of chemical analysis have been brought to bear on the problem of atomic composition. These include classical wet chemical analyses, atomic emission and absorption, X-ray fluorescence, neutron activation and infrared absorption. Of these, only the last offers the possibility of determining molecular compositions.

Relatively little has been published regarding the molecular species present in the organic portion of aerosols, despite the observation that organic materials can represent a large fraction of the total material present in some urban aerosols (1). Most of the data available have been determined by chromatographic methods and consist mainly of data on hydrocarbons. Presumably, this reflects the difficulty in passing polar compounds through columns without prior derivitization. More recently, the use of gas chromatography, with mass spectrometric detection, has been applied to air pollution problems. Raymond and Guiochon have studied hydrocarbons in Paris air (2). Boyer and Laitinen have reported an extensive study of organic compounds in automobile engine exhausts (3). Although large amounts of polar compounds were found, they were unable to identify these.

Mass spectroscopy has long been recognized as a powerful means of identifying organic compounds, although it is often difficult to distinguish between isomers. The first use of mass spectra in the study of air pollutants was reported by Happ, Stewart and Brockmyre in the identification of chlorinated solvents (4). Shortly thereafter, Shepard et al. used mass spectrometry in identifying a number of hydrocarbons and classes of other compounds in smog samples (5). The instruments used by these early workers were of low resolving power and were capable of measuring ion masses to only unit mass. Even now, almost all gas chromatographic mass spectrometry is conducted with instruments capable of only unit mass resolution. With unit mass resolution, it is difficult to identify individual mass numbers by empirical formula, and compound identification must rest upon the study of many different ion masses produced by a single compound. This requires that separations be made so that spectra of individual compounds can be observed without interference by other compounds.

In recent years, mass spectrometers of much higher resolving power and mass accuracy have become available. Since the atomic masses of various isotopes are not precise integers, it is often possible to resolve ion peaks that have the same nominal unit mass but differ in actual mass because of different empirical formula. If sufficient accuracy in mass measurement can be obtained, it is possible to determine the empirical formula of a given ion, or at least to limit the empirical formula to a few possibilities. The ability of high-resolution mass spectrometers to provide empirical formulas for ions is a great help in elucidating the structures of pure compounds and is of real assistance in unraveling the mass spectra of mixtures. Such instruments are seldom used with chromatographs because of the relatively slow rate at which spectral scans can be repeated, compared to the time interval in which a compound emerges from the column. In addition, the large volume of data produced in a short period of time becomes awkward, even with computer assistance. At about the time that work on aerosols began in this laboratory, Sharkey and co-workers reported the use of high-resolution mass spectroscopy in the study of aerosols (6).

The prime objectives in the present work were (1) to examine the usefulness of high-resolution mass spectroscopy without prior chemical separations in determining the composition of the organic portion of atmospheric aerosols and (2) to investigate the composition of real aerosols samples at various urban sites. Work was begun in this laboratory in 1970, with support from the Environmental Protection Agency beginning in July, 1972.

SECTION II

CONCLUSIONS

1. High-resolution mass spectroscopy without prior separation of components is a useful, if not ideal, tool for characterizing the organic fraction of urban aerosols. The precision of abundance measurements is insufficient to follow the relatively small variations found at many locations. Sensitivity factors for many compounds are not known.

2. High-resolution mass spectra without prior separation seldom permit unambiguous identification of specific compounds without the use of other data or chemical intuition. It is usually necessary to use the most intense ions for identification. Ion fragments useful for confirmation are often either of very low intensity or are missing altogether. Separations of species based upon the time/temperature of evaporation from an ion probe are not very reliable. Rates of evaporation are subject to matrix effects.

3. High-resolution mass spectra are useful for semi-quantitative and exploratory studies and reveal the presence of a great many organic compounds at detectable levels in urban aerosols.

4. The distribution of types of organic compounds in urban aerosols is remarkably uniform for the sites studied; the principal variation is in total amounts of materials.

5. Many compounds of presumably photochemical origin are often found in abundance late at night. Stability of many compounds appears to be sufficient to permit long persistence in the atmosphere.

6. The study of diurnal variations of specific compounds at a site is seldom informative. Variations are often small and reflect the past history of the air parcel. Sites in the Los Angeles area are more likely than other sites to show useful diurnal variations.

7. It is difficult to distinguish compounds emitted directly into the atmosphere from those formed by reaction in the atmosphere by examining diurnal variations. Many different types of compounds show similar variations and may simply reflect the ability of the aerosols to adsorb materials from the gas phase.

8. The major components of fine particles in urban aerosols are sulfates and hydrocarbons. Most of the other compounds regularly found are polar organic compounds of low vapor pressure and at least fair solubility in water.

9. Compounds usually found in urban aerosols include phenol and substituted phenols, benzoic acid and isomers of higher homologs, dicarboxylic acids of five to seven carbon atom chains, and related difunctional compounds. Some evidence of the presence of polynuclear aromatic hydrocarbons is found.

10. The difunctional compounds appear to contain a mixture of alcohol, carboxy acid, aldehyde, nitrate, and acyl nitrate or nitrite functionalities. These, together with dicarboxylic acids, would be expected to be formed from cyclic olefins. The nitrogen-containing difunctional compounds are found in large amounts only where large amounts of other difunctional compounds and diacids are found. Some sites contained large amounts of diacids with small amounts of other difunctional compounds. Products of cyclic olefins appear to be important contributors to urban aerosols.

11. A series of compounds found by others to be products of the oxidation of toluene in smog chamber experiments was present in urban aerosols. These toluene derivatives are important components of urban aerosols. Lesser evidence for products of oxidation of terpenes was found.

12. Benzoic acid was found to be a major component in automobile exhaust. The benzoyl ion formed in the ion source of the mass spectrometer from benzoic acid (and from other compounds) is an intense peak in mass spectra from automobile exhausts. Benzoic acid and benzoyl ion may be useful indicators of automotive activity, but it is not known whether other common sources produce these materials.

13. No evidence of lead or its compounds was found. Lead compounds may be of insufficient volatility to permit introduction into the spectrometer by evaporation from a probe at temperatures below 300° C.

14. Little organic material other than small amounts of hydrocarbons was detected in large (supermicron) particles. The use of impactors to remove large particles does not appear to alter the composition of organic fractions appreciably.

15. The use of high-resolution mass spectra without prior separations is relatively free from sources of accidental sample contamination and is less time-consuming than careful

chemical and chromatographic separations, but is not nearly as satisfactory for identification of specific compounds and structures. The study of aerosols by high-resolution mass spectroscopy for exploratory purposes nicely complements careful chemical separations of model aerosols.

SECTION III

RECOMMENDATIONS

1. The study of diurnal variations should be conducted only at sites providing very favorable conditions such that material from the past history of the air parcel is minimal. Midcontinental sites appear unsuitable. For favorable sites, strong inversions are needed, with samples taken to provide at least 2-hour time resolution.

2. Samples from the eastern mountainous areas in the summer should be studied to determine whether terpene products are important components of aerosols in these areas.

3. The study of specific sources of organic compounds should be extended. Automobile exhausts should be examined with and without aging. Efforts should be made to find sites with large amounts of aerosols but with the aerosols dominated heavily by single type sources, coal-burning power plants, automotive activity, etc. Such source studies would require fewer samples and produce more useful information than diurnal studies at sites having multiple sources of organics.

4. The use of impactors does not appear worthwhile. Filters used in high-volume samplers should produce satisfactory samples which can easily be obtained by people involved in other work.

5. Some simple and rudimentary separation prior to the introduction of samples into the mass spectrometer would be useful. If most (but not necessarily all) of the sulfates and/or hydrocarbons could be removed, the total ion current from the ion source would be lowered. Since current methods use only a very small sample, the amounts of sample could be increased with consequent increase in sensitivity and reliability for observation of the more interesting polar organic compounds.

6. If diurnal variation studies are replaced with fewer, more specific source studies, the number of samples could be reduced to make it practical to run samples in multiplicate to improve precision. Improvements in the automation of the mass spectrometer-computer system would help.

7. Pure samples of the compounds produced from olefins, toluene, and terpenes should be prepared, and their mass spectra and sensitivity factors determined.

8. The mass spectrometer used in these studies is by now somewhat obsolete technically. Instruments available in other laboratories could be expected to provide better resolving power and mass accuracy, with somewhat greater sensitivity. Increased sensitivity would probably not be useful without removal of the bulk of the hydrocarbons, however.

SECTION IV

CHARACTERISTICS OF MASS SPECTRA FROM COMPOUNDS IN AEROSOLS

It would seem that it would be extremely difficult to interpret even high-resolution mass spectra of complex mixtures found in atmospheric aerosols. Although ambiguities certainly exist, there are factors that make high-resolution mass spectra without chemical separations useful. The avoidance of separations minimizes sample handling and the chance for accidental contamination. Also, much less time is required.

Some ions are formed from large numbers of compounds. Some of these ions can, however, be used to estimate the amounts of classes of compounds present. These ions are usually fragments of small mass. For example, the presence of the C_4H_9 ion can be used as a measure of total alkanes, even if other compounds can form the ion, since hydrocarbons are present in great amounts and dominate the mass spectrum. The abundances of a few ions such as the tropylium ion (C_7H_7) and the benzoyl ion (C_7H_5O) are useful as parameters characteristic of groups of limited numbers of related compounds.

The identification of specific compounds requires the production of ions reasonably specific for a given compound. Such specific ions are not produced by all compounds of interest.

Simple alkanes and alkenes fragment greatly with no ions characteristic of individual compounds or isomers. We have made no attempt to estimate specific components.

Aromatic hydrocarbons produce useful ions, in many cases. Ions corresponding to the unfragmented molecule (parent peak) are usually intense, and these compounds are quite unsaturated. Other hydrocarbons can form such ions by multiple fragmentation, but intensities should be low.

Polynuclear aromatic compounds produce intense parent ions of relatively high molecular weight and great unsaturation.

Many compounds of interest contain atoms other than carbon and hydrogen, such as nitrogen and oxygen. Many compounds contain several such atoms. These compounds form ions containing these atoms, and such ions can be separated from hydrocarbon ions and the empirical formulas determined. The fragmentation of molecules containing functional groups is usually simpler than for hydrocarbons.

For many of the oxygen-containing compounds found in aerosols, the parent ion is very intense and is often the most intense ion in the spectrum. This is true of phenol, substituted phenols, and aromatic acids. Most nitrogen species show intense parent ions or an intense ion formed by loss of a single hydrogen atom from the molecule. In this case, the ion retains the nitrogen-atom characteristic mass.

Dicarboxylic acids produce ions primarily by the loss of CO_2H_2 from the molecule. Information is lost in this process, since the oxygen content of these compounds is a major characteristic. The parent ions can be found, however, in samples containing relatively large amounts of these compounds.

In an examination of a sample, material is evaporated from the spectrometer probe into the ion source over a period of time as the temperature of the probe is raised in a programed manner. During this time, a series of mass spectra of the effluent gases is recorded. From these, plots of ion abundance against temperature-time are made for specific ions. We call these plots "mass thermograms". Similar profiles from different thermograms imply that the ions originated from compounds evaporated at the same temperature. If the spectrum of a suspect compound is known from the literature or can be reasonably deduced from the spectra of related compounds, the ions expected to be produced in large amounts can be determined. The compound can be identified by the appearance of similar mass thermograms for the ions expected. Care must be taken to anticipate alternate compounds of similar spectra. Many compounds were originally identified in this way from studies of samples containing relatively large amounts of material. For some compounds, the occurrence of thermograms for several identifying ions is seen only for samples containing relatively large amounts. Other samples may be of such low concentration that only the major ion is seen. It is assumed that the origin of the major ion remains the same. This is a risky procedure, but appears to be the best that can be followed. Details of the computer system for identifying compounds by similar means in routine analyses are given in Section VI.

The above method or technique of identification is certainly not completely satisfactory. It is always possible that ions identified as parent ions could have arisen as fragments of other molecules. It is fortunate that, for the major organic molecules containing the functional groups discussed below, the abundances of different compounds are not widely different. Thus, very weak ions from one compound are not likely to interfere with major ions from another.

Mass spectra of isomers are often similar. It is nearly impossible to determine the positions of ring substituents on aromatic rings. In such cases, only the presence of total isomers can be reported.

We believe that identification of most of the compounds found to be present in substantial amounts is correct and consistent with other data, except for ambiguities noted in the computer reports and in Section X. The computer-produced reports should not be used without careful reading of Section X, and the reader should be aware that errors probably exist, particularly for compounds not found in substantial amounts.

SECTION V

EXPERIMENTAL PROCEDURE

SAMPLE COLLECTION. Except for samples from the Los Angeles area, samples studied in this work were collected using an apparatus described by Schuetzle (7,8,9). This apparatus consists of an impactor designed to collect particles of larger diameter than 1 or 2 micrometers on small gold plates. Following the impactor, Gelman Type A glass fiber filters were used to collect fine particles. The impactor back-up was always used, whether or not the large particles were later examined. The glass filters and impactor plates were cleaned by heating to 550°C. for 24 hours. They were then stored in glass vials with Teflon lined caps. After sampling, the filters and impactor plates were returned to glass vials and cooled to dry-ice temperature. Samples were maintained at dry-ice temperature during shipment and storage until just before introduction into the mass spectrometer. Filters and impactor plates were handled with tools which had been flamed to remove organic materials, and handling was carried out in a clean zone of aluminum foil.

Samples from West Covina, Pomona, and Dominguez Hills were collected by personnel of the Air and Industrial Hygiene Laboratory of the State of California Department of Health, under supervision of Bruce Appel. A two-stage high-volume sampler, equipped with a cyclone for removal of large particles, was used. Samples were cut from large Gelman Type A glass fiber filters and shipped in dry-ice.

Volumes of air taken were calculated from times of sampling and flow rates determined by rotameters. Rotameters were calibrated by direct water displacement.

MASS SPECTROSCOPIC MEASUREMENTS. An Associated Electronics Industries Type MS 9 mass spectrometer, having Nier-Johnson geometry, was used in this work. The resolving power was set to 7000 to 10,000. The spectrometer was interfaced to a Digital Equipment Corporation PDP-12 computer. During operation, the computer provided the timing for initiation of spectral scans and recorded the spectral data on magnetic tape. The same computer was used off-line for subsequent data processing. As is common in high-resolution mass spectrometry, perfluorokerosene was admitted to the ion source during scans to provide ions of known mass to serve as mass markers. Because of the large number of fluorine atoms in these ions, they are mass deficient and are seldom confused with ions from other compounds.

Samples were introduced into the spectrometer using a probe, shown in Figure 1. Measured portions of glass fiber filters were punched from the sampling filter as discs of 6-mm diameter. Occasionally, more than one disc was used. The probe was cooled to room temperature, and the cap removed. The filter disc was sandwiched between gold plates on the probe body near the thermocouple. Impactor plates were inserted on the probe body, with the sampling surface away from the probe body and covered with a gold plate or gold grid. The assembly was held by a pressure spring and the probe cap. The probe could then be inserted through an air lock so that the glass capillary tip extended into the ion chamber and terminated near the electron beam. Probes were cleaned before use by heating to 380° C for 15 to 30 minutes.

Once the probe was inserted, the ion source was brought into operation. This required about 1 minute. Mass scans were then begun, coincident with the start of a programmed heating of the probe. The probe was provided with a cartridge heater, controlled by a Hewlett-Packard Model 240 temperature programmer and monitored by use of a thermocouple located in the probe near the sample. The probe temperature was increased from 25° C at a rate of 30° C per minute, until a temperature of 380° C was reached. At this point, the temperature was held constant for the remaining scan period. Mass spectra were scanned every 50 seconds, with 36 seconds used for scan and 14 seconds used for magnet recovery between each scan. The first scan began at the start of heating. Usually 35 scans were made on a sample, with a total heating time of about 30 minutes. It was difficult to determine in advance the volatile materials loading of the samples. Since inadequate sensitivities or detector overloads were produced by improperly set detector gains, such scans were often repeated in order to obtain good spectra.

The sensitivity of the mass spectrometer varies with detector gain and with slit widths used in the ion beam. Accordingly, some standard compound must be used to monitor sensitivity. Initially, measured amounts of biphenyl were added in methanol solution to each filter disc or impactor to serve as an internal standard for sensitivity. This proved to be unsatisfactory, with biphenyl occasionally being lost during sample preparation and insertion. The use of o-bromobenzoic acid was substituted. This compound was not ordinarily added to actual samples. Rather, after instrument stability had been obtained and operating parameters had been fixed, blank filters were treated with measured amounts of o-bromobenzoic acid in methanol and these run as calibration samples immediately prior to running a series of unknowns.

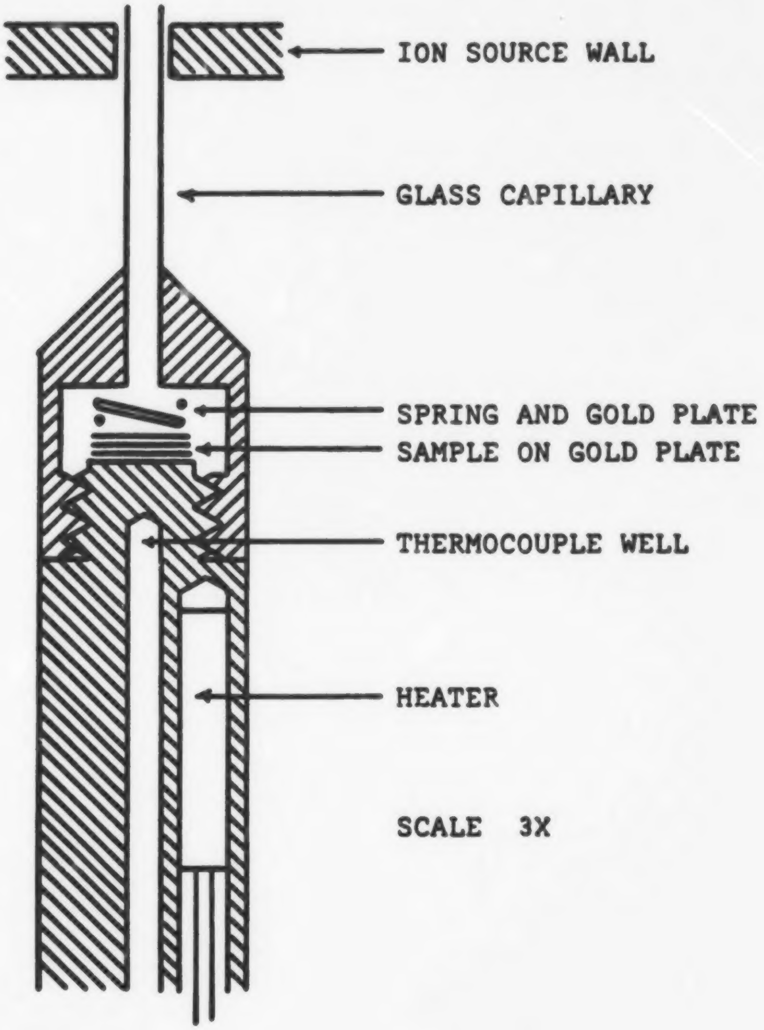

ION SOURCE WALL
GLASS CAPILLARY
SPRING AND GOLD PLATE
SAMPLE ON GOLD PLATE
THERMOCOUPLE WELL
HEATER
SCALE 3X

FIGURE 1. SAMPLE INSERTION PROBE.

At the conclusion of scans for a sample, the data for about 35 mass spectra of the sample compounds, plus the perfluorokerosene markers, had been recorded on magnetic tape for subsequent processing. Usually 3 or 4 tapes were needed for a single sample.

SECTION VI

DATA REDUCTION

Raw spectral data recorded during mass spectrometer operation must be processed through a number of steps for final results to be produced. The raw data consist of a series of ion currents arriving at the detector. Ion current is sampled by the computer every 80 microseconds over a 36-second scan. Ion currents are not logged on magnetic tape unless the current exceeds a threshold value, preset slightly above the zero ion current base line to remove noise. A typical beam of ions of a given mass passes across the detector slit during mass scan to produce a series of from 10 to 30 ion current measurements, following a more or less gaussian peak profile. These ion current measurements are logged, together with the precise time at which the peak terminated.

The raw data are examined by computer programs, to calculate the heights of peaks and to compute the time of occurrence of the peak. The time is taken as the time at which the center of gravity (centroid) of the peak profile occurred. These data are logged on the same magnetic tape.

A second computer pass through the data is then conducted. The computer is provided with a spectrum of the perfluorokerosene used as a marker. The computer requires operator interaction to identify a few of the perfluorokerosene peaks in the aerosol spectrum with perfluorokerosene peaks in the known spectrum. The computer programs then attempt to identify a series of selected perfluorokerosene peaks in the aerosol spectrum by comparing the two spectra. Usually 45 to 48 peaks are identiifed. If identifications are not satisfactory, operator interaction can be used to assist. Once the perfluorokerosene is identified, these known masses are used as mass standards. The masses of other peaks in the aerosol spectrum are calculated by interpolation between known peaks on a time basis. Masses are calculated to 0.0002 atomic-mass units, with errors seldom exceeding 0.003 atomic-mass units. The calculated masses and peak intensities are logged on the same magnetic tape and can be displayed or printed out as desired. Data reduction to this point is widely used in this laboratory for many purposes and is similar to data reduction from computer-controlled high-resolution mass spectrometry used in many laboratories.

Mass spectra at this point can be examined for quality and can be used to search for compounds not previously identified. Previously identified compounds were routinely detected, and the computer-prepared reports, included as part of this document, were obtained by the following process.

The computer is provided with a "mass file" on magnetic tape. This file is a listing of all precise masses used to identify all compounds to be reported. The current mass file contains 388 entries. For each mass in the file, a search is made of all the 35 mass spectra from a sample for the presence of ion current peaks having calculated masses within a specified tolerance of the listed mass. The tolerance was usually 0.003 to 0.005 atomic-mass units. If such peaks are found, a mass thermogram for that mass is accumulated and stored on a separate magnetic tape.

The set of observed mass thermograms is printed out and examined for erroneous mass identifications and, if needed, corrections made by the operator. Similar mass thermograms and printouts are used for sensitivity calibration runs on o-bromobenzoic acid. The thermograms are ion intensities as functions of time. The average area under the thermograms for the four intense peaks for o-bromobenzoic acid is divided by the weight of o-bromobenzoic acid used to obtain instrument sensitivity factors.

A series of "compound files" have been prepared listing specific compounds or classes of compounds to be reported. These files are used in binary form on magnetic tape. Printed versions of the files are included with the data base in this report. The origins of these files are discussed in Section VII. For each compound, the name of the compound is given, together with the parent mass of the compound if it is not a class of compounds. An identifying mass is included. The sensitivity of this ion relative to o-bromobenzoic acid is given. T1 and T2 are time limits within which the compound is expected to be evaporated from the probe. Where possible, two confirming masses are provided, together with the known ratio of their intensities to that of the identifying mass.

Computer-prepared final reports are compiled in the following manner. For each compound in a compound file, the mass thermograms are examined for entries corresponding to the identifying mass within the time limits specified. No report is compiled if no such entries are found. If acceptable identifying masses are found, the expected heights of confirming masses are computed from the ratios in the compound file. The thermograms are examined, scan by scan, for the presence of confirming ions of proper intensity. A tolerance of a factor of two is usually used. It is possible to print out the number of expected intensities actually found and the number missed, together with the number of confirming mass entries calculated to be below detection limits. For large compound abundances, the confirming masses are usually found within a factor of two. We have not printed out the data on confirming masses in this report because (1) it would increase the volume of printouts considerably and (2) such confirming masses are not found for samples of low concentration or suitable masses cannot be found.

The amounts of compounds reported are calculated from the areas under the mass thermograms for the identifying masses, using (1) the sensitivity of the identifying mass, (2) the volume of air sampled, (3) the aliquot taken for analysis, and (4) the instrument sensitivity as determined from o-bromobenzoic acid.

All results in this report are stated in micrograms per cubic meter of air.

SECTION VII

COMPOUND FILES AND THE BASIS FOR IDENTIFICATION

Since the bulk of this work is reported by computer-prepared results, the origins of the compound files upon which the computer results are based are discussed here.

The compounds that appear in the compound files were selected for various reasons. Many compounds have been included because evidence of their presence in at least some aerosols was found by studying mass spectra obtained from actual aerosols. Some of these compounds were found in early work in this laboratory but were not found in the samples reported here. For example, in an early sample, taken in Seattle, three ion masses were found in substantial amounts which could not be accounted for by ions containing carbon, hydrogen, oxygen and nitrogen. These ions did correspond to the parent ion and the two major fragments in the spectrum of arsenious oxide (As_4O_6). Arsenious oxide was then included in the files.

Many compounds have been included because their presence in the atmosphere or in common sources had been reported or suggested. Some compounds were added since they were obviously related to known or suggested pollutants and were expected to be possible pollutants. Some compounds have been found in smog chamber experiments by others (10,11).

Some compounds were included simply because they were compounds of interest and could possible be detected. A series of chlorinated pesticides and biphenyls was included for this reason.

In some cases, the presence of ions characteristic of a class of compounds is reported. Some of these are representative of large classes of compounds, but may be useful parameters for characterizing aerosols.

In order to identify compounds by examining mass spectra and to determine identifying and confirming masses, the spectrum of the compound must be known and care must be taken to consider other possible compounds having similar spectra. Spectra were obtained in this laboratory in some cases. More often, data were used from the literature. Several large compendia of spectral data are available (12, 13,14). Beynon, Saunders, and Williams (15) and McLafferty (16,17) have provided useful general treatments of the spectra of organic compounds.

The selection of identifying masses was based on several criteria. To begin with, the ion must be of strong intensity and sufficiently removed in mass from likely interfering ions. Also the ion must be as characteristic as possible of the compound. Smaller fragments and fragments containing only carbon and hydrogen are generally useless except as representatives of a few large classes of compounds. Often the unfragmented parent ion satisfies these conditions. Some compounds were included in the files even though their spectra were not known, using the parent ion for identification. Such entries would call attention to the possible presence of such compounds by the appearance of the entries in the routine printouts. In a few cases, compounds of possible interest could not be included because no suitable ions are formed.

Sensitivity factors and the ratios of intensities of confirming masses to identifying masses were calculated from literature data, or, in some cases, were estimated. For a few important compounds, the factors have been determined by preparing synthetic samples from pure compounds. For ions representing classes of compounds, average values for the more likely members of the class were used.

Time limits were obtained by examining the thermograms for synthetic samples or by examining the thermograms from actual aerosols that contained large amounts of the compounds. For many compounds, the time limits were not known and were simply set wide enough to include the entire range of time available.

Names to be reported were chosen to reflect, as well as possible, the identity of the material, subject to limitations on the number of characters storable in the files. Questionable identities and likely isomer confusions have been indicated in most cases. For a number of cases, where ions could arise from multiple sources, the empirical formulas of the ions have been used. Thus, for some entries, the name is simply a convenient label for a parameter of the mass spectra. Individual compounds are discussed in more detail in Section X. Estimated or arbitrarily assigned sensitivities are indicated by the notation EST or E, following the name. The letter L indicates use of literature values, and C indicates a class of compounds. An arabic number following the compound name indicates the number of standardization runs on pure compounds on which sensitivity factors were based.

SECTION VIII

ACCURACY OF THE METHOD

An estimate of the reproducibility of the methods used in this work may be obtained from Table 1. Here are compared results from two separate analyses of a sample taken at Washington University on the morning of September 8, 1973. In the first analysis, data system overloads occurred resulting in the loss of most of the data from these scans. Since the same sample was used, errors in sampling are not shown, but we believe these to be minimal compared to other sources of error. The loss of the scans does not affect the results for many compounds, since these compounds were not evaporated from the probe in significant amounts during the missing times in the other sample. For the compounds indicated with an asterisk, large amounts of evaporation from the probe should have occurred during the missing scans.

Table 1

Comparison of Duplicate Analyses

Compound	Reported Abundance Micrograms/Cubic Meter		Relative Error
Sulfates	6.2	6.7	7%
NH_4NO_3	1.0*	1.4	29
NH_4Cl	0.24*	0.40	40
Glutaric Acid	0.37	0.37	0
Adipic Acid	0.55	0.86	36
Total Alkanes	0.12	0.14	14
C_9H_{12}	0.18	0.24	25
Pentandioic Acid	0.11*	0.40	72
Total Acids	0.13	0.17	24
$C_4H_8N_2$	0.05*	0.17	70
Phthalates	0.25	0.35	29
$C_6H_6O_2$	0.14	0.18	22

The average relative error is 31% for all of the results and 20% if one ignores the four compounds strongly affected by the missing runs. Relative errors are generally smaller for compounds found in larger amounts. Compounds not found in concentrations as large as 0.1 microgram per cubic meter are not included in the Table and can be expected to be much larger, especially as the concentrations approach the limits of detection. The reproducibility of the data is determined primarily by the magnitudes of ion currents detected. Reproducibility may be expected to be better for samples where large volumes of air and large aliquots were used. Low-sensitivity factors for compounds indicate production of strong ion currents and improved precision. It is difficult to provide specific information for all of the results reported here, but a reasonable estimate is that, for compounds at concentrations greater than about 0.2 microgram per cubic meter, the precision should usually be about 20%. It is possible that an occasional very erroneous result could be reported by confusion of a weak mass spectrum peak with a nearby strong peak for another compound. We have tried to avoid this error for the compounds of major interest, discussed in Section X, by careful examination of the mass thermograms prior to preparation of reports.

The accuracy of the results depends not only upon the reproducibility but also upon the accuracy of the sensitivity factors assigned. The same sensitivity factors have been used throughout this report so that comparisons of relative amounts, from one sample to another and between sample sites, are valid. For those compounds for which the reports indicate calibrations with pure compounds, the accuracy should be about the same as the reproducibility. We estimate that sensitivity factors are within 50% of true value for data based on the literature. For those compounds having arbitrarily determined sensitivities, only relative comparisons should be made.

Some interlaboratory comparisons of results for sulfates have been made. Results obtained by Bruce Appel, of the Air and Industrial Hygiene Laboratory of the State of California Department of Health are shown in Table 2; these results are compared with results obtained in this work on samples provided by him. The average discrepancy is about 12%. Table 3 compares sulfate results with those obtained by Paul Roberts of the California Institute of Technology, using samples taken in this work at Washington University. The agreement is less satisfactory.

Table 2

Comparison of Sulfate Results - West Covina

This work	26	12	12	26	34	43	69	37	29
Appel	23.6	13.2	15.6	23.7	38.8	42.5	69.5	33.8	22.4

Table 3

Comparison of Sulfate Results - Washington U.

This work	7.7	5.1	15	13	3.6
Roberts	8.2	3.3	16.4	5.5	2.2

SECTION IX

AEROSOL SAMPLES STUDIED

The major part of this report consists of computer-prepared results of the analyses of 88 field samples, together with a few samples of automotive exhaust. Each sample represents about 35 mass spectra, with the total data base representing over 3000 mass spectra.

Samples were taken at times to represent stable air, with low wind velocities and smoggy conditions. The results probably do not represent average conditions at the several sites. We do not have detailed meteorological data on some of the sites, nor is the author of this report competent to discuss this subject.

Six sets of samples were obtained in the St. Louis area, in collaboration with the Regional Air Pollution Study. Samples were taken on the "intensive study" days to permit future comparison with other work. The Tyson Valley site was used to provide a rural site near St. Louis. A smaller number of samples were taken at three sites in the Denver area, including a site at the National Center for Atmospheric Research at Boulder. A series of samples were taken in Seattle during a period of low visibility and smog alert.

In addition to the above samples, samples were supplied by Bruce Appel, of the Air and Industrial Hygiene Laboratory of the California Department of Health, from three sites in the Los Angeles area.

Good time-resolution was obtained only in the 1974 St. Louis samples and in the Pomona and West Covina sites in the Los Angeles area. These two latter sites show the most interesting diurnal variations because of high concentrations of pollutants, good time-resolution and wide variation in abundances.

Sampling Site Locations:

Washington University 1973 - height, 4 meters at the top of the EPA trailer on the campus of Washington University on the soccer field near the intersection of Forsythe and Big Bend roads.

Washington University 1974 - height, 10 meters on tower at east end of Francis field on the campus of Washington University north of Forsythe road.

Holiday Inn - height, 50 meters on top of Holiday Inn hotel in downtown St. Louis.

National City - height, 4 meters on top of EPA trailer in the industrial area in National City, Illinois.

Tyson Valley 1973 - height, 6 meters on tower mounted on truck at Tyson Valley reservation, a wooded area about 35 km southeast of St. Louis.

Tyson Valley 1974 - height, 2 meters on roof of old radio shack at Tyson Valley.

Seattle - height, 12 meters and 2 meters above the top of More Hall on University of Washington campus about 8 km northeast of downtown area.

Denver - height, 42 meters and 2 meters above roof of Regency Inn, about 10 km west northwest of downtown Denver and adjacent to freeway.

Montbello - height, 22 meters and 2 meters above roof of Montbello State Bank, about 50 km east northeast of downtown Denver.

NCAR - height, 4 meters on truck-mounted tower at the National Center for Atmospheric Research site in the hills near Boulder, Colorado.

Sampling times are shown in Table 4.

Table 4

Sample Times

West Covina PDT					
TB0197	22:20	7/23/73	to	2:20	7/24/73
TB0195	2:20	7/24/73		7:20	7/24/73
TB0198	7:20	7/24/73		9:20	7/24/73
TB0199	9:20	7/24/73		11:20	7/24/73
TB0200	11:20	7/24/73		13:20	7/24/73
TB0201	13:20	7/24/73		15:20	7/24/73
TB0202	15:20	7/24/73		17:20	7/24/73
TB0203	17:20	7/24/73		19:20	7/24/73
TB0204	19:20	7/24/73		22:20	7/24/73
Pomona PDT					
LAP289	21:10	8/16/73	to	1:20	8/17/73
LAP290	1:20	8/17/73		6:20	8/17/73
LAP291	7:20	8/17/73		9:10	8/17/73
LAP292	9:10	8/17/73		11:10	8/17/73
LAP293	11:10	8/17/73		13:10	8/17/73
LAP294	13:10	8/17/73		15:10	8/17/73
LAP295	15:10	8/17/73		17:10	8/17/73

Table 4 (continued)

Pomona PDT				
LAP296	17:10	8/17/73	19:10	8/17/73
LAP297	19:10	8/17/73	22:00	8/17/73
Dominguez Hills PDT				
LAD239	22:10	10/4/73 to	22:00	10/5/73
LAD244	11:10	10/5/73	13:10	10/5/73
LAD245	13:10	10/5/73	15:10	10/5/73
Denver MST				
DER1	19:30	11/6/73 to	12:00	11/7/73
DER2	12:10	11/7/73	8:00	11/8/73
DER3	8:10	11/8/73	18:10	11/8/73
DER4	18:40	11/8/73	8:10	11/9/73
Montbello MST				
DEM1	9:50	11/8/73 to	19:50	11/8/73
DEM2	20:05	11/8/73	8:50	11/9/73
NCAR (Boulder) MST				
DEN1	18:00	11/6/73 to	16:40	11/7/73
DEN3	16:40	11/8/73	9:50	11/9/73
Washington University 1973 CDT				
SLW14	17:30	9/5/73 to	23:30	9/6/73
SLW15	0:25	9/6/73	7:15	9/6/73
SLW16	7:55	9/6/73	12:15	9/6/73
SLW17	12:40	9/6/73	16:25	9/6/73
SLW18	16:45	9/6/73	23:05	9/6/73
SLW19	23:40	9/6/73	8:40	9/7/73
Washington University 1974 CDT				
SLW62	18:50	8/19/74 to	1:15	8/20/74
SLW63	1:30	8/20/74	3:45	8/20/74
SLW64	4:00	8/20/74	7:30	8/20/74
SLW65	8:00	8/20/74	9:50	8/20/74
SLW66	10:00	8/20/74	12:30	8/20/74
SLW67	12:40	8/20/74	14:30	8/20/74
SLW68	14:45	8/20/74	19:00	8/20/74
SLW69	19:10	8/20/74	22:15	8/20/74
SLW70	22:25	8/20/74	2:00	8/21/74
SLW71	2:10	8/21/74	7:45	8/21/74
Holiday Inn CDT				
SLH8	16:00	9/5/73 to	23:00	9/5/73
SLH9	23:10	9/5/73	6:40	9/6/73
SLH10	6:50	9/6/73	11:30	9/6/73
SLH11	11:45	9/6/73	15:45	9/6/73

Table 4 (continued)

Holiday Inn CDT				
SLH12	15:50	9/6/73	22:30	9/6/73
SLH13	22:40	9/6/73	8:10	9/7/73
SLH16	10:10	9/9/73	8:15	9/11/73
National City CDT				
SLN62	18:10	8/19/74	0:20	8/20/74
SLN63	0:45	8/20/74	3:05	8/20/74
SLN64	3:15	8/20/74	7:00	8/20/74
SLN65	7:05	8/20/74	9:06	8/20/74
SLN66	9:15	8/20/74	11:15	8/20/74
SLN67	12:00	8/20/74	13:40	8/20/74
SLN68	14:00	8/20/74	18:20	8/20/74
SLN69	18:35	8/20/74	21:30	8/20/74
SLN70	21:40	8/20/74	1:20	8/21/74
SLN71	1:30	8/21/74	7:00	8/21/74
Tyson Valley 1973 CDT				
SLT1	19:00	9/4/73 to	17:35	9/5/73
SLT2	18:07	9/5/73	8:26	9/6/73
SLT3	9:11	9/6/73	18:10	9/6/73
SLT4	18:20	9/6/73	8:56	9/7/73
SLT5	9:09	9/7/73	13:35	9/8/73
SLT6	13:45	9/8/73	11:45	9/9/73
SLT7	11:55	9/9/73	11:55	9/10/73
SLT8	14:05	9/10/73	16:25	9/11/73
Tyson Valley 1974 CDT				
SLT62	18:00	8/19/74 to	24:00	8/19/74
SLT63	0:00	8/20/74	3:00	8/20/74
SLT64	3:00	8/20/74	7:00	8/20/74
SLT65	7:00	8/20/74	9:00	8/20/74
SLT66	9:00	8/20/74	11:00	8/20/74
SLT67	11:00	8/20/74	13:00	8/20/74
SLT68	13:00	8/20/74	15:00	8/20/74
SLT69	15:00	8/20/74	18:00	8/20/74
SLT70	18:00	8/20/74	21:00	8/20/74
SLT71	21:00	8/20/74	24:00	8/20/74
SLT72	0:00	8/21/74	7:00	8/21/74
Seattle PDT				
SEU3	8:25	10/17/74 to	11:35	10/17/74
SEU4	11:40	10/17/74	16:30	10/17/74
SEU5	16:40	10/17/74	22:00	10/17/74
SEU6	22:10	10/17/74	9:10	10/18/74
SEU7	9:20	10/18/74	16:10	10/18/74
SEU8	16:20	10/18/74	23:00	10/18/74
SEU9	23:10	10/18/74	12:50	10/19/74

Three aerosol samples, taken directly at the tail pipe of automobiles, were analysed. Sample SEA 2 was taken from a 1973 Land Rover, equipped with a 2.3-liter, 4-cylinder engine, operating at idle. SEA 6 and SEA 7 were obtained from a 1975 Mercury Montego, equipped with a 5.6-liter engine. SEA 6 was obtained at idle, and SEA 7 was obtained with the engine at high speed but without load. The Rover did not have a catalyst in the exhaust system, but the Mercury did.

SECTION X

DISCUSSION OF RESULTS

LARGE PARTICLES.

We found that very little organic material of interest is found in particles collected on impactor plates. Mueller and co-workers found that most of the organic materials were present in the small particles (accumulation mode) in Pasadena, California (18). Although a number of impactor samples have been taken in this work, we have not regularly prepared computer reports on such samples and have largely discontinued collection of such samples.

An example of a typical composition found on impactor plates is included in the reports for a sample taken at Washington University in 1974. Very little material is seen. Small amounts of sulfates, ammonium chloride, and ammonium nitrate are found, together with traces of hydrocarbons.

CLASSIFICATION OF COMPOUNDS.

Chemical species found in aerosols may be classified on several bases. Compounds can be classified as primary or secondary, depending on the mode of entry into the atmosphere. We use here the idea that primary compounds are those emitted into the atmosphere initially as that specific chemical species. Secondary compounds are species formed in the atmosphere by chemical reactions. Such reactions may occur in the gas phase or on particulate surfaces. It is difficult to determine the physical state of primary compounds as they were emitted, since they are collected on aerosols. Similarly, the physical state of secondary compounds, at formation, cannot be deduced from the experiments described in this work.

It would be desirable to classify compounds on the basis of the original sources of primary compounds and precursors of secondary compounds. Sources of emissions can only be guessed from studies of atmospheres in complex urban areas. Many compounds appear to be stable in the atmosphere. These can travel long distances, and emissions from various sources become hopelessly intermingled. Studies of specific sources would be desirable.

In the following discussion, compounds will be classified mainly on the basis of the chemical functionalities involved, since this is the major sort of information provided by the analyses reported here.

DIURNAL VARIATIONS.

Variation in the abundance of compounds over a daily period is interesting for the deduction of sources of emissions and for the detection of evidence of photochemical formation. Some rather strict conditions must be met. A low mixing height and stable air mass are needed so that sufficient concentrations are built up to permit reasonable accuracy in measurement. The air mass must be clean initially and must not be burdened with materials from its past history. At the same time, a means of slow but definite removal of components is needed. Otherwise, stable compounds will simply accumulate over long periods of time. These conditions do not appear to be met in most of the observations reported here. The most informative samples are those taken at West Covina, California.

If a chemical species in the atmosphere in the gas phase is strongly adsorbed upon, or dissolves in, the surface of aerosol particles, the aerosol becomes an effective means for extracting materials from the gas phase. If the extraction is essentially complete, the materials in the aerosol represent the actual amounts of materials in the air mass. If extraction is only partial, however, the amounts of compounds found in aerosols depend on both (1) the amounts of compounds present and (2) the amount of extracting surface and its effectiveness. Thus, diurnal variations could reflect changes in the amounts of total aerosol, superposed upon changes resulting from primary emissions and secondary formation.

HYDROCARBONS.

Mass spectrometry is not a satisfactory way to analyse complex mixtures of hydrocarbons without extensive prior separations. Hydrocarbons fragment extensively, with a given fragment ion often arising from fragmentation of a large number of compounds. It is, therefore, probable that many compounds contribute to many of the individual results reported here. In many cases, a result reflects largely a class of compounds; the name used in the report is often simply a convenient name for a fragment, not necessarily a correct specification of the precise compound.

The situation is somewhat better for aromatic, and particularly polynuclear aromatic compounds. These compounds produce abundant parent (unfragmented) ions, which are used for identification. In addition, the high degree of unsaturation makes it unlikely that ions of the same empirical formula would be extensively produced by fragmentation of much more saturated compounds. There is, however, a possibility that such unsaturated ions could be produced in small amounts from fragmentation of large amounts of other compounds. Unfortunately, the amounts of aromatics are generally small, relative to alkanes and alkenes.

Alkanes and Alkenes. We have attempted to determine the amounts of these classes of compounds in a rather arbitrary manner. The abundance of the C_5H_{11} ion is used for reporting TOTAL ALKANES. The abundance of the C_6H_{13} ion, together with separation based on the temperature of the probe, is used in an attempt to get a rough division of alkanes into ALKANES LOW MW (molecular weight), ALKANES MED. MW, and ALKANES HI MW. Similarly, the C_5H_9 unsaturated ion is used for TOTAL ALKENES, and the C_6H_{11} ion for the various fractions of ALKENES. These ions can be formed from a wide variety of compounds, including compounds that are not hydrocarbons. The alkene fragments can be formed from alkanes. The sensitivity factors vary widely from one compound to another. These ions are found in all spectra in great abundance and can, therefore, be measured with fairly good precision. Since hydrocarbons appear to be present in very large amounts relative to other organics, it is probable that non-hydrocarbons do not contribute much to the totals. Thus, we believe that, despite the many interferences, these ions serve as useful, if arbitrary, measures for comparison of general hydrocarbon levels in the samples.

Pinene and Terpenes. The C_9H_{13} ion abundance is reported as ALPHA PINENE, and the C_7H_9 ion abundance is reported as TERPENES AS ALPHA PINENE. These two ions are the major fragments formed from many, but not all terpenes. Unfortunately, terpenes fragment badly, and the two ions are not peculiar to terpenes. The ratios of terpenes reported to alkanes and alkenes are about the same for all samples studied, and we must conclude that we cannot distinguish terpenes from the large amounts of other hydrocarbons present.

Aromatic Hydrocarbons. A number of alkyl-substituted aromatic compounds are reported based upon the abundances of the parent ions. Such compounds produce strong parent ions. The entry XYLENES, MON SUB BENZENES is based on the abundance of the C_7H_7 (tropylium) ion. This ion is produced in large amounts in the fragmentation of many substituted benzenes, including xylenes, and many monosubstituted alkyl benzenes. The most abundant compounds seen are usually the tropylium ion and the C_9H_{12} ion.

The compound files include the parent mass for biphenyl. This is, therefore, reported where it occurs. The entries after BIPHENYL are to be ignored, however, since biphenyl was often added to the samples as an internal standard in earlier samples.

Polynuclear Aromatic Compounds. The parent ions are used as measures of the amounts of a series of polynuclear aromatic compounds. These compounds form abundant parent ions of high unsaturation and represent better cases for identification than other hydrocarbons. They are observed only in trace amounts in most samples, with large relative errors in concentrations.

Hydrocarbon composition of Aerosols. The amounts of hydrocarbons were found to vary markedly between sampling stations and, often, with time, at a single station. The ratios of amounts found to total alkanes and alkenes for the various types of hydrocarbons are, however, quite uniform over the data base. We have been unable to find significant variations in the distribution of hydrocarbons into the various types. Either the interferences between types are sufficiently severe to hide varying compositions, or the aerosols contain essentially the same distributions of compounds. Average values for hydrocarbon types at various stations are given in Table 5.

Table 5.

Average Amounts of Hydrocarbons

Site	Alkanes plus Alkenes	Alpha Pinene	Xylene, Mon Sub Benzene	C_9H_{12}	Naphthalene
Pomona	1.74	0.67	0.34	0.93	0.028
West Covina	5.24	2.7	1.2	3.7	0.21
Dominguez	1.8	0.50	0.24	0.82	0.021
Seattle	3.0	1.5	0.48	2.4	0.063
Denver	5.3	2.0	0.50	3.4	0.057
Montbello	1.3	0.37	0.16	0.70	0.016
Wash. U. 73	3.1	1.7	0.49	2.4	0.15
Wash. U. 74	0.81	0.33	0.15	0.49	0.014
Holiday	2.1	1.1	0.48	1.6	0.14
Nat'l City	0.86	0.45	0.15	0.49	0.066
Tyson 73	0.34	0.14	0.10	0.21	0.026
Tyson 74	0.79	0.29	0.21	0.60	0.006
NCAR	0.84	0.41	0.12	0.58	0.015

Most hydrocarbons would be expected to be primary compounds in aerosols and would have great stability, permitting long persistence in the atmosphere. The amounts found would be expected to represent past history of the air parcel superposed upon the local emissions. Diurnal variations of alkanes and alkenes are shown in Figs. 2, 3, and 4. As would be expected, there is no evidence of photochemical effects on the amounts of hydrocarbons. There is only a little evidence of the influence of automotive activity on hydrocarbon abundances. There is a morning and an afternoon peak in the data for West Covina, where the largest amounts of hydrocarbons were found. In general, however, the diurnal variations were erratic, with large amounts of hydrocarbons often found late at night. The Seattle samples show a somewhat erratic general increase over a 2-day period.

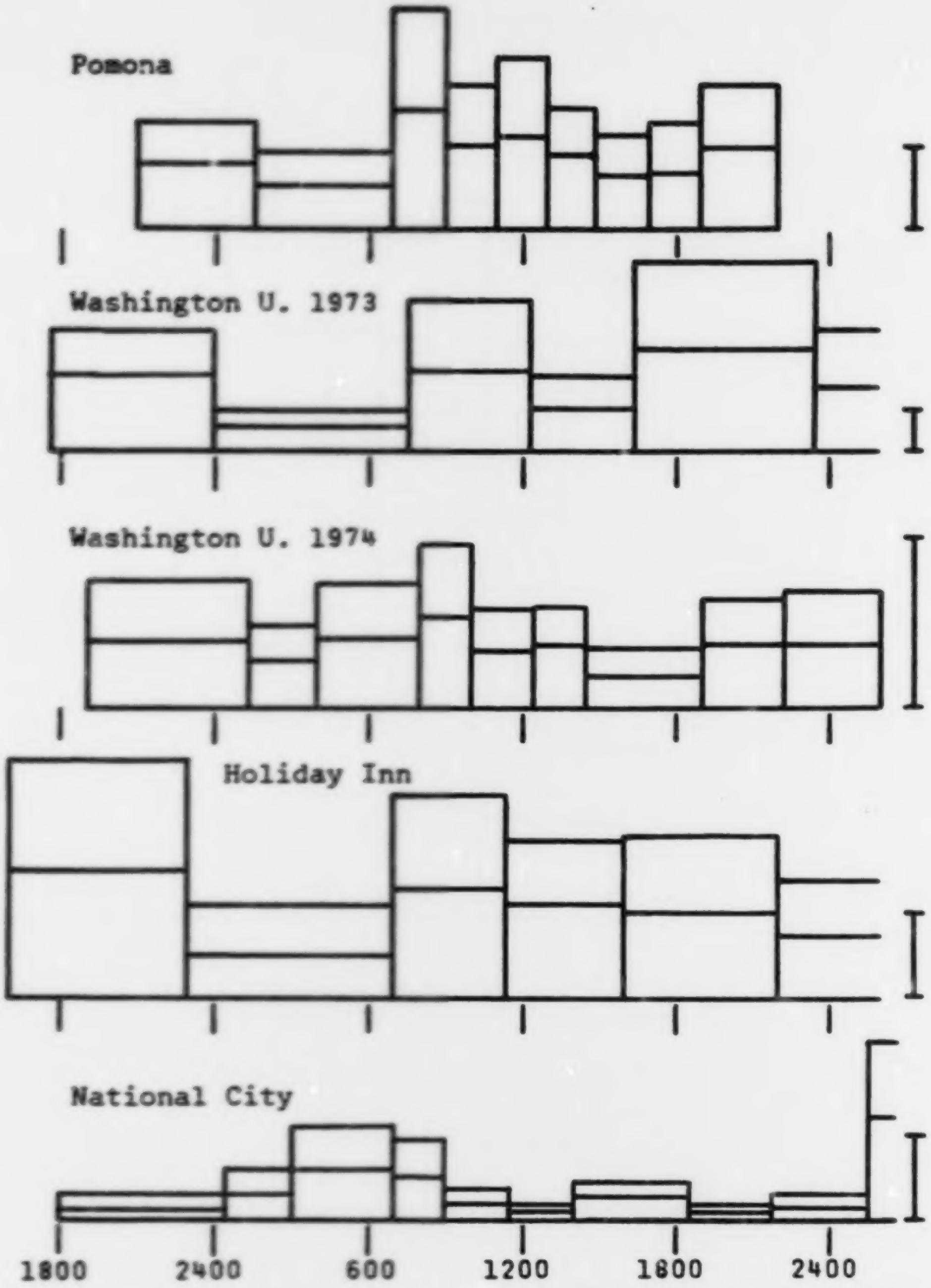
The amounts of aromatic hydrocarbons found are smaller than the amounts of aliphatic compounds and appear to vary in a manner similar to aliphatic compounds, except that, at West Covina, there appear to be differences, with the morning peak not found. Data for aromatic compounds for West Covina are shown in Fig. 3.

The amounts of polynuclear aromatic compounds reported are quite small, with large relative errors. The presence of pyrene and chrysene is barely detectable, although these two were detected in all of the West Covina and Washington University 1973 samples and in most of the 1973 Holiday Inn samples. The apparent presence of these compounds is worrisome, but it is possible that fragments of other hydrocarbons are responsible for the observations. Better evidence should be sought.

We had expected to find evidence of hydrocarbon compositions in the coal-burning areas that are different from those in areas where little coal is burned. This is not the case. It appears that little can be learned from the hydrocarbon data reported here, except that the composition of the hydrocarbon fraction seems to be quite uniform at the various stations.

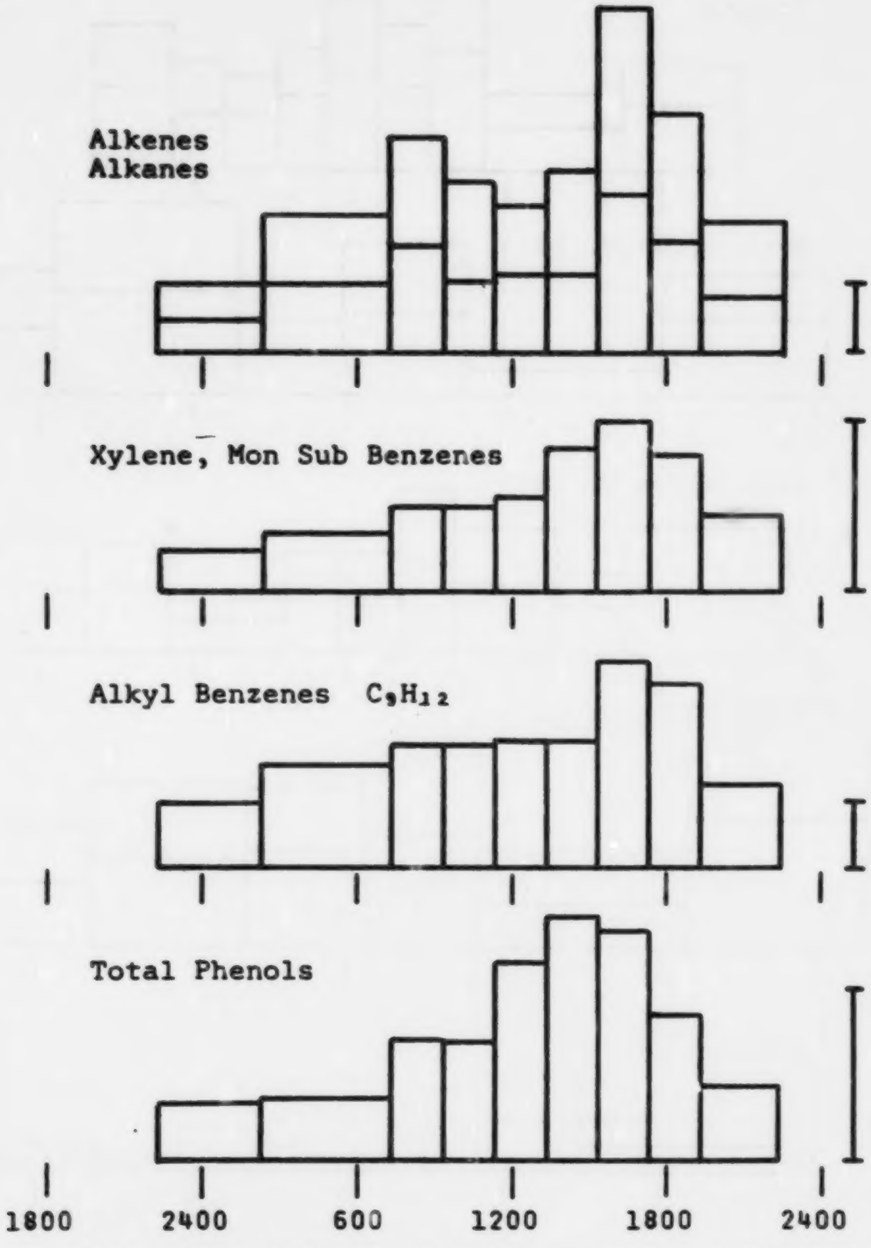
AROMATIC OXYGENATED COMPOUNDS.

The mass spectra were searched for a number of aromatic oxygen-containing compounds. The identifying mass for each is the parent ion, except for the entry PHENOL+NO2,CHO,CO2H. This entry is based on the abundance of the C_6H_5O ion. A wide variety of substituted phenols can contribute to this ion abundance. Generally, phenol and alkyl phenols form little of this ion, but phenols with ring-substituted



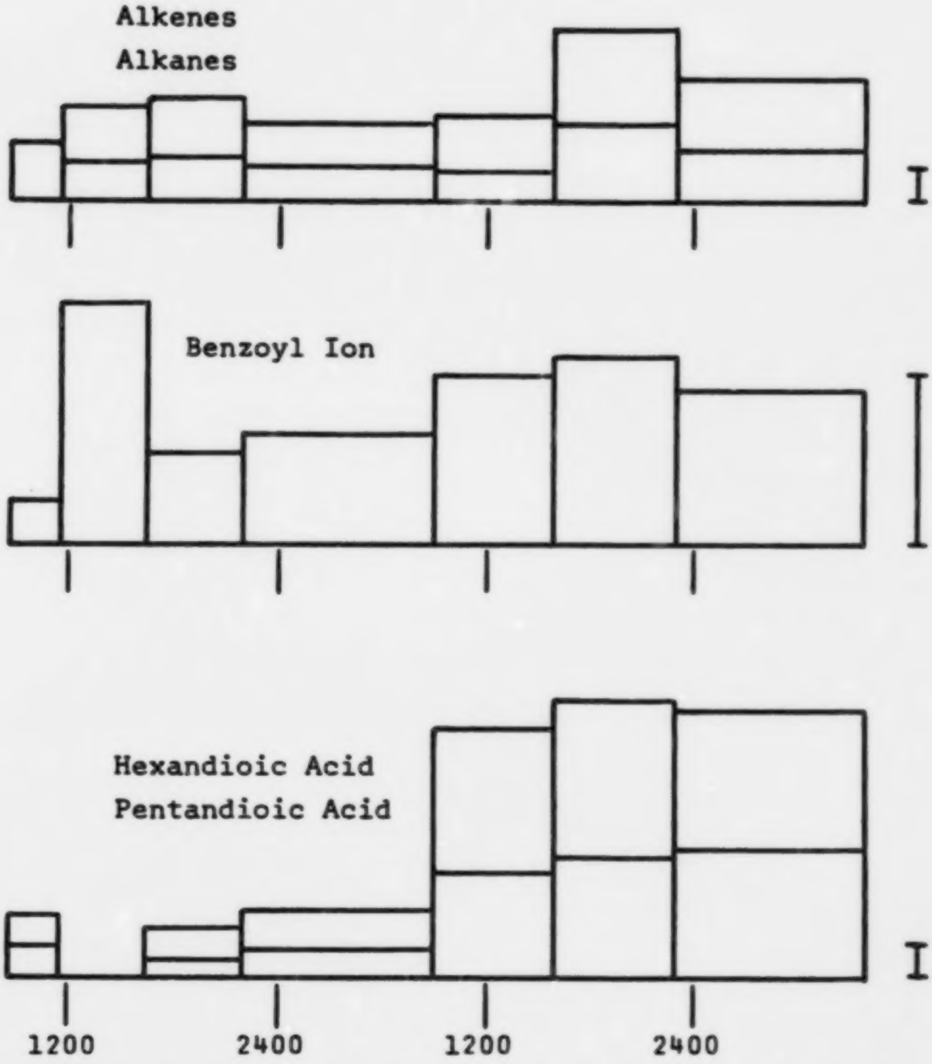
Vertical tics indicate 1 microgram per cubic meter.

FIGURE 2. DIURNAL VARIATIONS OF ALKENES (Above) AND ALKANES (Below).



Vertical tics indicate 2 micrograms per cubic meter.

FIGURE 3. DIURNAL VARIATIONS AT WEST COVINA HYDROCARBONS AND PHENOLS.



Vertical tics indicate 1 microgram per cubic meter.

FIGURE 4. DIURNAL VARIATIONS AT SEATTLE.

functional groups often form substantial amounts of this ion. We do not know specifically what compound or compounds are responsible for the occurrence of this ion in the spectra. The ion is, however, the most abundant ion found in this class of compounds.

Phenols can arise by primary emission. Some phenols were detected in one of the automotive exhaust samples run as part of this project. Phenols could arise also as secondary compounds, formed by oxidation of alkyl benzenes in the atmosphere.

The amounts of phenolic compounds were generally small, with the largest amounts found in the West Covina samples. With the exception of the West Covina samples, diurnal variations of phenols did not show definite patterns. There are always larger relative errors in compounds of low concentrations. There was some tendency for the diurnal variations to follow hydrocarbons, but this is not definite. The variation of total phenols with time at West Covina is shown in Fig. 3. The definite afternoon peak suggests that photochemical formation of phenols as secondary compounds is possible, but this is inconsistent with the data below.

Average values for various phenolics are given in Table 6.

Table 6.

Average Amounts of Phenolic Compounds

Site	Phenol	Phenol+ NO2,CHO	Trimethyl Phenol	Cresols	Dihydroxy Benzenes
Pomona	0.053	0.17	0.050	0.033	0.031
West Covina	o.21	0.65	0.27	0.16	0.33
Dominguez	0.028	0.23	0.014	0.011	0.07
Seattle	0.044	0.22	0.012	0.024	0.128
Denver	0.020	0.040	0.025	0.014	0.042
Montbello	0.006	0.015	0.021	0.020	0.046
Wash. U. 73	0.086	0.63	0.12	0.065	0.11
Wash. U. 74	0.024	0.012	0.060	0.021	0.049
Holiday	0.084	0.23	0.094	0.048	0.087
Nat'l City	0.023	0.049	0.042	0.012	0.020
Tyson 73	0.015	0.030	0.012	0.010	0.023
Tyson 74	0.018	0.058	0.093	0.028	0.046
NCAR	0.011	0.028	0.007	-	0.014

Some data showing the remarkable uniformity of the distribution of various compounds in the organic part of aerosols are given in Table 7. The average ratio of phenol and other phenolics to total alkanes and alkenes does not vary by more than a factor of 2 or 3 for most of the stations studied. It does appear that there were somewhat smaller amounts of phenols in the Denver area stations (Denver, Montbello, NCAR), compared to hydrocarbons. Table 7 also shows relative distributions of three kinds of phenols for those sites where larger amounts of phenols were found. Again, the uniformity in the distribution among the phenols is striking.

Table 7.

	Ratio to Total Alkanes+Alkenes		Per Cent of Total Phenols		
Site	Phenol	Other Phenolic	Phenol	Cresols	Phenol+ NO2,CHO
Pomona	0.031	0.16	16%	10%	50%
West Covina	0.038	0.27	12%	10%	40%
Dominguez	0.016	0.18			
Seattle	0.015	0.13	10%	6%	51%
Denver	0.004	0.08			
Montbello	0.005	0.08			
Wash. U. 73	0.028	0.30	9%	6%	62%
Wash. U. 74	0.030	0.18			
Holiday	0.040	0.22	16%	9%	43%
Nat'l City	0.027	0.14			
Tyson 73	0.044	0.22			
Tyson 74	0.023	0.28			
NCAR	0.013	0.06			

If phenols were produced by photochemical activity at West Covina, one would expect to see larger amounts of phenols, compared to hydrocarbons. This is not, however, the case.

Two important interferences should be noted. The entry BENZALDEHYDE is based upon the parent peak of the compound. Benzoic acid and other compounds produce ions resembling the spectrum for benzaldehyde. Benzaldehyde might be expected to be formed, but it is readily oxidized to benzoic acid. The identification of this entry is probably incorrect, but large amounts of benzaldehyde were found in one sample of automotive exhaust. The other samples of automotive exhaust did not show benzaldehyde, despite the detection of large amounts of benzoic acid. There is a second source of possible misidentification in that the mass spectra from cresols are very similar to the spectrum from benzyl alcohol. We cannot distinguish between these two possibilities.

AROMATIC CARBOXYLIC COMPOUNDS.

The compound files enable a search for members of an interesting class of compounds related to benzoic acid. These are identified in the reports as BENZOIC ACID, METHYL BENZOIC, ETHYL BENZOIC, and TRIMETHYL BENZOIC, together with an arbitrary measure of the abundance of the BENZOYL ION in the mass spectra. The identification of the substituted benzoic acids is uncertain, since mass spectra of reasonable isomers are similar. These compounds were not found in large amounts, and the minor fragments needed to establish firm identification are weak or missing. It is difficult to distinguish between methyl benzoic acids, phenyl acetic acid, and methyl benzoate. Similar problems exist for the other substituted benzoic acids. The benzoyl ion is formed in abundance from a variety of compounds, including benzoic acid, benzaldehyde, phenyl ketones, and benzoate esters.

These kinds of compounds appear to be possible secondary compounds formed in the atmosphere by the oxidation of alkyl aromatic compounds. Wilson, Schwartz and Kinzer (10) found benzoic acid in auto exhaust particulates. In the three samples of auto exhaust reported here, benzoic acid and benzoyl ion are among the few compounds found in substantial amounts, other than hydrocarbons and sulfates. The amounts are shown in Table 8. It is attractive to examine these compounds as measures of automotive activity, as suggested by Wilson et al.

Table 8.

Automotive Exhaust Samples
in micrograms per cubic meter

	SEA 2	SEA 6	SEA 7
Benzoyl ion	1700	160	210
Benzoic Acid	260	66	94
Ratio	6.54	2.42	2.23

The sensitivity factor for benzoic acid has been reported in the literature and verified in our laboratory by running standards. We have established an arbitrary sensitivity for the benzoyl ion, since this would depend upon the specific compound forming this ion. Benzoic acid itself produces 1.3 times as much benzoyl ion as parent ion used to measure benzoic acid. Since the aribtrary sensitivity factor for benzoyl ion is 0.5 that for benzoic acid, the reports should show 2.6 times as much benzoyl ion as benzoic acid, if all benzoyl ion originates from benzoic acid. For the second two samples of auto exhaust measured here, the ratio of benzoyl to benzoic acid is close to that expected for the presence of benzoic acid alone. The first sample apparently contains other benzoyl-producing species. We have found no evidence of other substituted benzoics in auto exhaust. Large amounts of benzaldehyde were reported for the first sample, however. This would provide additional benzoyl ion. A more detailed search for benzoyl-producing compounds should be conducted in auto exhausts. The compound files used for preparing computer reports were based on studies of atmospheric aerosols, and these were simply used by the computer in preparing the reports on auto exhausts.

Wilson et al.,found phenyl acetic acid in auto exhaust along with benzoic acid. We did not find this compound in auto exhaust. (It would be reported as methyl benzoic acid.) We do, however, find methyl benzoic acid (possibly phenyl acetic) and higher homologs in urban aerosols along with benzoic acid and benzoyl ion. Average amounts of these compounds found are given in Table 9. The results for Pomona, Dominguez, and National City must be ignored. Unfortunately, bromobenzoic acid, used as a standard for measurement of spectrometer sensitivity, was added to some samples, and the standard added to these was later found to have been contaminated with free benzoic acid.

Table 9.

Site	Benzoic	Methyl Benzoic	Ethyl Benzoic	Trimethyl Benzoic	Benzoyl Ion
West Covina	0.14	0.17	0.08	0.07	1.01
Seattle	0.17	0.06	0.12	0.02	0.83
Denver	0.04	0.03	0	0	0.27
Montbello	0.06	0	0.01	0	0.25
Wash. U. 73	0.12	0.05	0.05	0.03	0.60
Wash. U. 74	0.02	0.01	0.01	0	0.13
Holiday	0.06	0.04	0.02	0.02	0.29
Tyson 73	0.006	0.003	0.003	0.001	0.04
Tyson 74	0.07	0	0.005	0.0005	0.20
NCAR	0.02	0	0	0	0.12

Table 10.

Abundance Ratios (Average)

Site	Total Benzoics to Alkanes + Alkenes	Benzoyl Ion to Total Benzoics	Benzoyl Ion to Benzoic
West Covina	0.09	2.2	7.2
Seattle	0.12	2.2	4.9
Denver	0.01	3.9	6.8
Montbello	0.05	3.6	4.2
Wash. U. 73	0.08	2.4	5.0
Wash. U. 74	0.05	3.2	6.5
Holiday	0.07	2.1	4.8
Tyson	0.10	2.6	2.9

In Table 10 are given ratios of benzoic acids to the sums of alkanes and alkenes, and the ratio of the benzoyl ion to benzoic acid alone and to the sums of all benzoic acids. Sites showing little material have been omitted. Total benzoic acids do not correlate well with hydrocarbons. This would be expected if benzoic acids represented automotive activity, but hydrocarbons arise from other sources as well. It is interesting that the highest value occurred at Seattle, a city where little coal is burned.

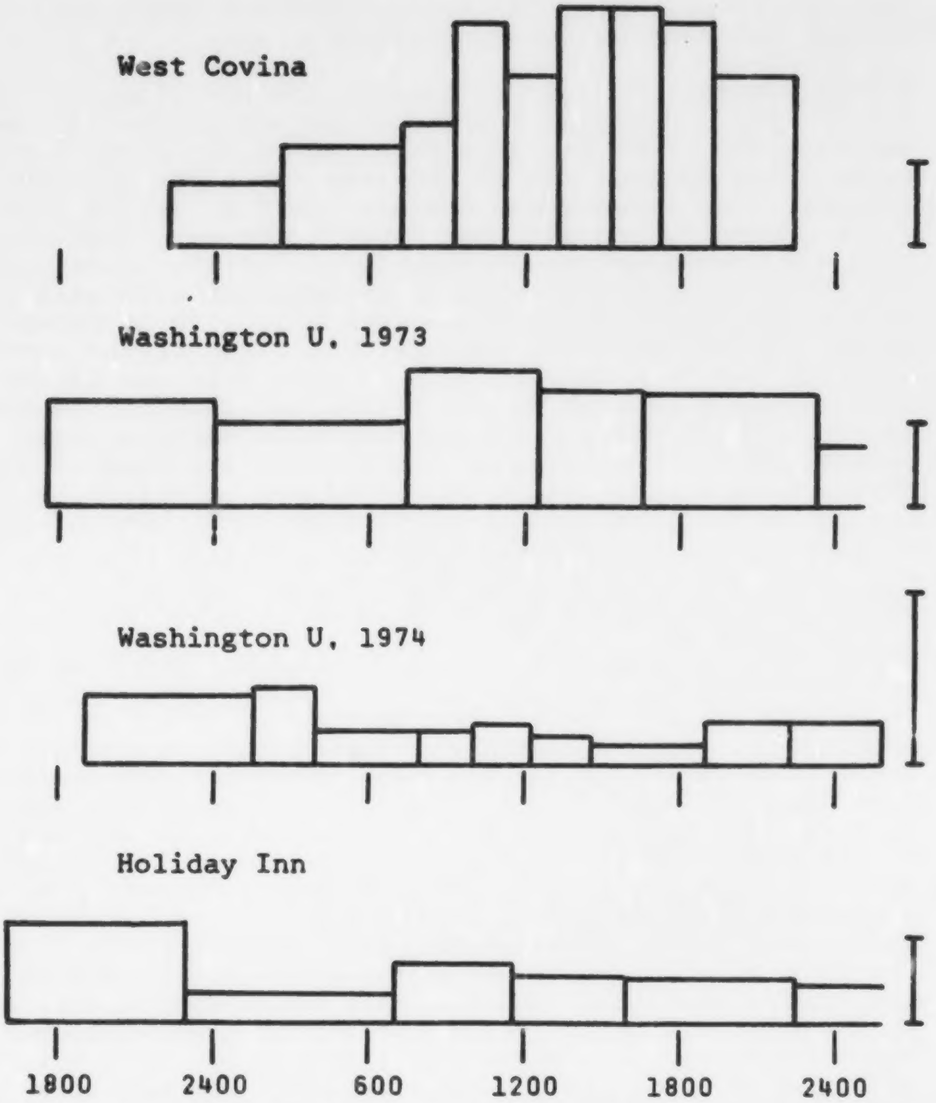
Some suggestion as to the identity of the reported substituted benzoic acids may be seen in Table 10. If the compounds are really ring substituted benzoics, they would not contribute much to benzoyl ion. Similarly, phenyl acetic acid and higher homologs would not contribute much. The ratio of the benzoyl ion to benzoic acid is always too high to account for benzoyl from benzoic acid alone. Benzoate esters do contribute large amounts of benzoyl ion. If one assumes that the compounds reported as substituted benzoic acids are, in reality, benzoate esters, then all should contribute about equally to benzoyl ion. In this case, the ratio of the benzoyl ion to all benzoates should be about 2.6. This is close to the values calculated in the table, particularly if one ignores sites with little material. Thus it is tempting to believe that the compounds reported are benzoic acid and its esters.

None of the substituted benzoic acids (or esters) were found in auto exhausts. It is possible that these are not emitted directly in auto exhaust, but are formed later. The auto exhausts reported here were sampled by placing a filter directly adjacent to the tail pipe, with the filter plane perpendicular to the flow of gases and at the edge of the stream. Samples were cooled after collection in dry ice. It is possible that ester formation could have occurred had the samples been permitted to age.

Diurnal variations for the benzoyl ion are shown in Figs. 4 and 5. The individual compounds are not present in large amounts, and there is large relative error in the observations. The benzoyl ion is, however, produced in larger amounts. The largest amounts are found at West Covina, where a morning and afternoon peak is found. The correlation with hydrocarbons is only fair. At the other stations, the diurnal variations show no correlation with peak rush-hour traffic, and do not correlate well with hydrocarbons, except for Holiday Inn. In the data taken in the morning at Seattle, there is, for both benzoic acid and benzoyl ion, a single high value which does not show in the hydrocarbons. Even though auto exhaust does contain large amounts of these materials, there is no evidence of their relation to automotive activity, except, possibly, at West Covina. Again, the data probably represent a lot of past history of the air parcel.

DICARBOXYLIC ACIDS

The presence of diacids having carboxylic functions on each end of a saturated carbon chain has been interpreted as a secondary formation of such compounds by reaction of ozone with cyclic olefins. The mass spectrometric behavior of these compounds is peculiar. The major ion seen results from loss of CO_2H_2 from the molecule. The parent (unfragmented) ions are quite weak. This results in the use of the fragment for estimation of abundances. This fragment contains only two oxygen atoms and can be formed from other compounds, such as unsaturated simple carboxy acids and dialdehydes. The abundances of these compounds based upon the loss of CO_2H_2 are reported as PENTANDIOIC, HEXANDIOIC, and METHYL HEXANDIOIC ACIDS. As a check on identification, we included estimates of the amounts of these compounds by parent ion under the names GLUTARIC, ADIPIC, and METHYL ADIPIC in the secondary difunctionals. The sensitivity of the parent ions is very poor, and, often, they do not show at all. We do find that, for samples containing large amounts of the compounds (e.g., at Pomona), roughly equivalent amounts of material were found by parent ion for most cases. Thus, we believe that we know the proper empirical formulas for these compounds. There is still the possibility that other isomers are involved. The identification of the species seen is based upon chemical reasonableness.



Vertical tics indicate 0.5 microgram per cubic meter.

FIGURE 5. DIURNAL VARIATIONS IN BENZOYL ION.

For example, the seven-carbon compound is believed to be a methyl-substituted hexandioic acid, rather than a straight chain compound, because methyl cyclohexene would be expected to be much more likely as a precursor than cycloheptene. We would caution against using the data from parent ions except as an indication of identification.

Although these compounds were found in substantial amounts at all stations, the amounts vary from site to site and also vary with time, at a given site, in a very erratic manner. Very large amounts were found at West Covina, Seattle, and, surprisingly, at Tyson in 1974. Somewhat smaller amounts appear in the Washington University samples. Low amounts were found in the Denver area, Pomona, and Tyson in 1973. We do not understand the erratic occurance of these compounds. Hexandioic acid does not follow pentandioic acid very well.

The only evidence of photochemical formation of these compounds lies in the West Covina data, where a strong maximum occurred in the late afternoon and corresponded to the maximum ozone concentration (19). At other stations, large amounts were often found late at night. We do not have ozone data for these stations; it would be interesting to see if correlations exist.

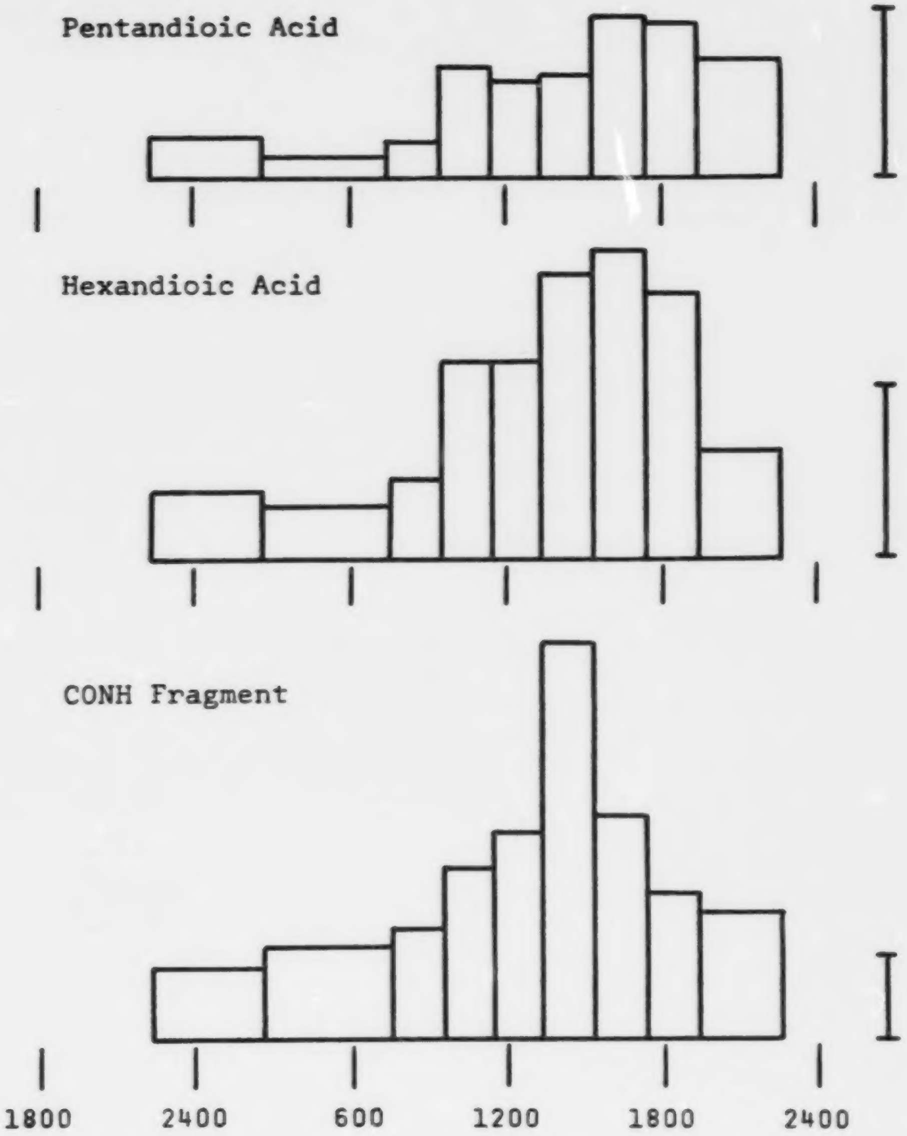
At the moment, we can only conclude that these compounds are found at all sites in large amounts and that they are subject to rapid fluctuations for unknown reasons. Average amounts are given in Table 11, with a plot of diurnal variation at West Covina given in Fig. 6 and, for Seattle, in Fig. 4.

ACIDS (AS ACETIC ACID).

This entry is an arbitrary measure of the abundance of the CH_3CO_2H ion only. This ion is found in large amounts and can arise from a number of compounds, including many acids. Since we have found it to be of little use, we will not discuss the matter here.

NITROGEN COMPOUNDS.

Identification of nitrogen-containing fragments is often difficult. The mass of a CH_2 portion of a molecule is 14.0156 a.m.u., which is very close to the mass of a nitrogen atom at 14.0031 a.m.u. It is easy to confuse nitrogen-containing species with hydrocarbon fragments, particularly at high molecular weights. The compound files contain a



Vertical tics indicate 5 micrograms per cubic meter.

FIGURE 6. DIURNAL VARIATIONS AT WEST COVINA.

Table 11.

Average Abundances of Diacids

Site	Pentandioic Acid	Hexandioic Acid	Methyl Hexandioic Acid
Pomona	0.45	0.95	0.57
West Covina	2.70	5.00	2.70
Dominguez	1.0	1.6	0.92
Seattle	1.8	2.25	0.94
Denver	0.50	1.30	0.40
Montbello	0.08	0.21	0.21
Wash. U. 73	0.90	1.09	0.73
Wash. U. 74	0.91	0.89	0.47
Holiday	0.92	1.25	0.52
Nat'l City	0.37	0.31	0.11
Tyson 73	0.20	0.23	0.08
Tyson 74	1.74	1.51	0.14
NCAR	0.27	0.10	0

number of nitrogen-containing species of fairly unusual molecular weights, but these are not seen in sufficient abundance to permit meaningful conclusions. Pyridine compounds were inserted into the compound files for attempts (unsuccessful) to trap sulfuric acid with pyridine vapor.

In the compound files, we have included a few small nitrogen-containing fragments, which, because of the low molecular weights, can be measured with greater freedom from confusion with hydrocarbon fragments. Of these, the most abundant at most sites is the CONH fragment. This fragment was found in two of the three auto exhaust samples studied here. This fragment could be formed from a great many compounds, but is, we expect, most commonly formed from amides. The largest amounts were found at West Covina. A plot of the diurnal variation in CONH at West Covina is shown in Fig. 6. This appears to be a simple buildup of material, with a clear and smooth maximum in the afternoon as would be expected from photochemical formation. Diurnal variations at other stations appear to be random. A huge amount of CONH was found in a single sample at Washington University, 1974, taken in the evening. It appears that this fragment can arise from primary automotive emissions and also by photochemical reactions; it possibly arose from a specific and unknown source at Washington University in 1974, and, possibly, elsewhere. We conclude that the CONH peak and others of simple structure can arise from so many possible mechanisms that little use can be made of them.

SECONDARY DIFUNCTIONAL COMPOUNDS.

In addition to the dibasic carboxylic acids discussed above, oxidation of cyclic olefins would be expected to produce compounds of intermediate oxidation and, in the presence of nitrogen oxides, nitrogen-containing derivatives.

Oxygen-Containing Secondary Compounds. We have included in the compound files entries corresponding to the parent ions of a series of partially oxidized cyclic olefins. Some of these compounds, together with nitrogen-containing species, have been identified in smog chamber reaction by Wilson et al. (10). These authors provide mass spectra of methylated derivatives. We have not prepared any of the methyl derivatives or the free compounds and have been unable to locate spectral data in the literature. The compounds have all been assigned the same arbitrary sensitivity factors. The parent ions expected for the various types of compounds are:

Alcohol-Aldehyde	$C_7H_{14}O_2$	$C_6H_{12}O_2$	$C_5H_{10}O_2$
Alcohol-Acid	$C_7H_{14}O_3$	$C_6H_{12}O_3$	$C_5H_{10}O_3$
Aldehyde-Acid	$C_7H_{12}O_3$	$C_6H_{10}O_3$	$C_5H_8O_3$*
Aldehyde-Aldehyde	$C_7H_{12}O_2$	$C_6H_{10}O_2$**	$C_5H_8O_2$**

*This mass is included among the products of toluene and is not listed under secondary difunctionals.

**These masses are attributed to dicarboxylic acids and appear under carboxylic acids.

There is undoubtedly some "crosstalk" between, or among, these entries. Aldehyde parents can be formed in small amounts from acids. The chain lengths are such as to make fragmentation by forming cyclic intermediates possible. Aldehydes are easily oxidized, and the possibility of chemical changes occurring during sampling and during shipment and storage is very real. The significance of a single compound is low. The important observation is that large amounts of one compound at a site are usually accompanied by large amounts of most, or all, of the others. Thus, the group taken together may represent a significant characterization of the aerosol.

The reports include under possible secondary difunctional compounds the parent masses for the dicarboxylic acids METHYL ADIPIC, ADIPIC, GLUTARIC, and SUCCINIC. The first three of these are discussed above. These are not included in the totals for difunctionals discussed below.

The ion $C_8H_5O_3$ is often seen in mass spectra in general and is formed in large amounts from phthalates. It is often attributed to phthalate contamination. We find the ion in all samples, including large particle fractions collected on impactor plates. We believe it to be an experimental artifact resulting from phthalate contamination. The ion is not found in significant amounts on blank samples. We have been unable to trace the source. The samples make contact with no plastics during collection and analysis. This ion is not included in the totals for difunctionals discussed below. Table 12 lists average abundances for total oxygen difunctional compounds (less diacids and phthalates), together with average total nitrogen difunctionals, toluene products, and terpene products.

Table 12.

Average Total Abundances

Site	Oxygen Difunctional	Nitrogen Difunctional	Toluene Products	Terpene Products
Pomona	0.26	0.08	0.96	0.06
West Covina	3.0	1.7	6.6	0.94
Dominguez	0.03	0	1.2	0.03
Seattle	0.24	0.55	2.6	0.07
Denver	0.67	0.34	0.64	0.07
Montbello	0.23	0.16	0.69	0.04
Wash. U. 73	1.2	0.50	2.1	0.26
Wash. U. 74	0.38	0.13	0.85	0.03
Holiday	1.3	0.45	1.8	0.27
Nat'l City	0.09	0.07	0.37	0.05
Tyson 73	0.21	0.05	0.32	0.01
Tyson 74	0.10	0.11	0.80	0.03
NCAR	0.08	0.04	0.03	0

The stations showing very high abundances of difunctionals (West Covina, Washington University 1973, and Holiday) also show high abundances of diacids. Large amounts of diacids were found also at Seattle and at Tyson 1974, but these show relatively little of the difunctional compounds. It may be that the difunctional compounds represent intermediate stages in the oxidation of cyclic olefins, and, at Seattle and Tyson 1974, sufficient oxidants exist to take the olefins rapidly to the fully oxidized diacid compounds. Washington University shows similar amounts of diacids in 1973 and 1974, but considerably smaller amounts of difunctional compounds in 1974.

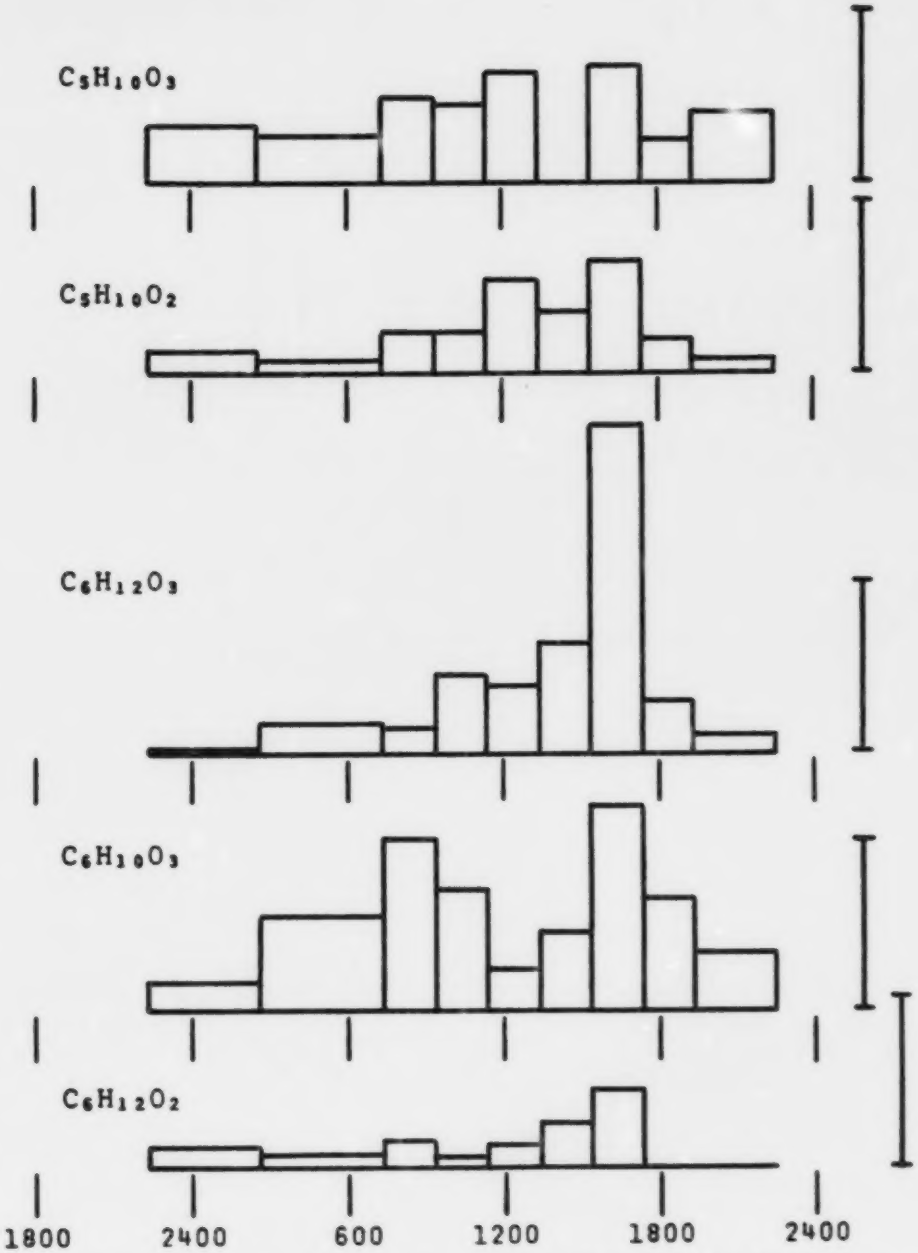
Diurnal variations in the various difunctional compounds so not show useful correlations except at West Covina. At this site, diurnal variations show quite rapid changes in abundances, with a tendency for peaks in the difunctional to occur coincident with, or somewhat preceeding, the peaks in the diacids and with more rapid disappearance later. This is what would be expected if difunctional are intermediates, ultimately oxidized to diacids. Diurnal variations at West Covina are given in Fig. 7 and diurnal variations for total oxygen difunctional compounds at other sites in Figs. 8 and 9. It does not seem worthwhile, for purposes of this study, to discuss individual members of this group of compounds. An idea of relative distributions among types may be gained from Table 13. The average amounts of all compounds corresponding to the parent ions of acid-alcohol, acid-aldehyde, aldehyde-alcohol, and di-aldehyde are given, normalized to acid-alcohol. The distribution by carbon chain length are given, normalized to the six-carbon chain. It is seen that no particular compounds dominate the compositions at the three sites where large amounts were found. At the other sites, smaller amounts were found, but even there most of the compounds were observed occasionally.

Table 13.

Relative Distributions of Oxygen Difunctionals

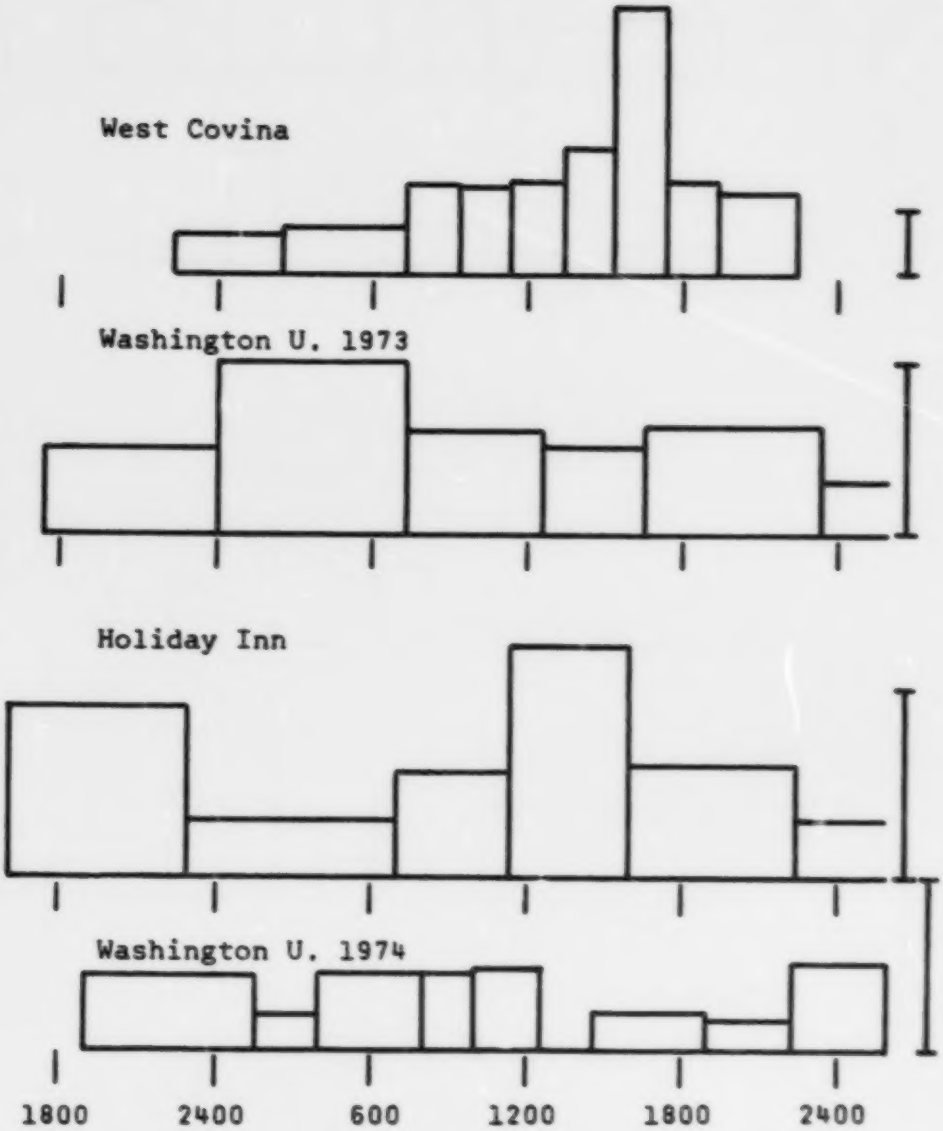
	Holiday Inn	West Covina	Wash. U. 1973
Acid-Alcohol	(1)	(1)	(1)
Acid-Aldehyde	0.70	1.05	0.85
Aldehyde-Alcohol	0.60	0.50	0.30
Di-aldehyde	0.40	0.56	0.30
C_5	1.35	0.56	0.51
C_6	(1)	(1)	(1)
C_7	0.73	0.34	0.48

Since these compounds may indicate intermediates formed in important aerosol reactions, efforts should be made to identify these compounds further and to characterize them.



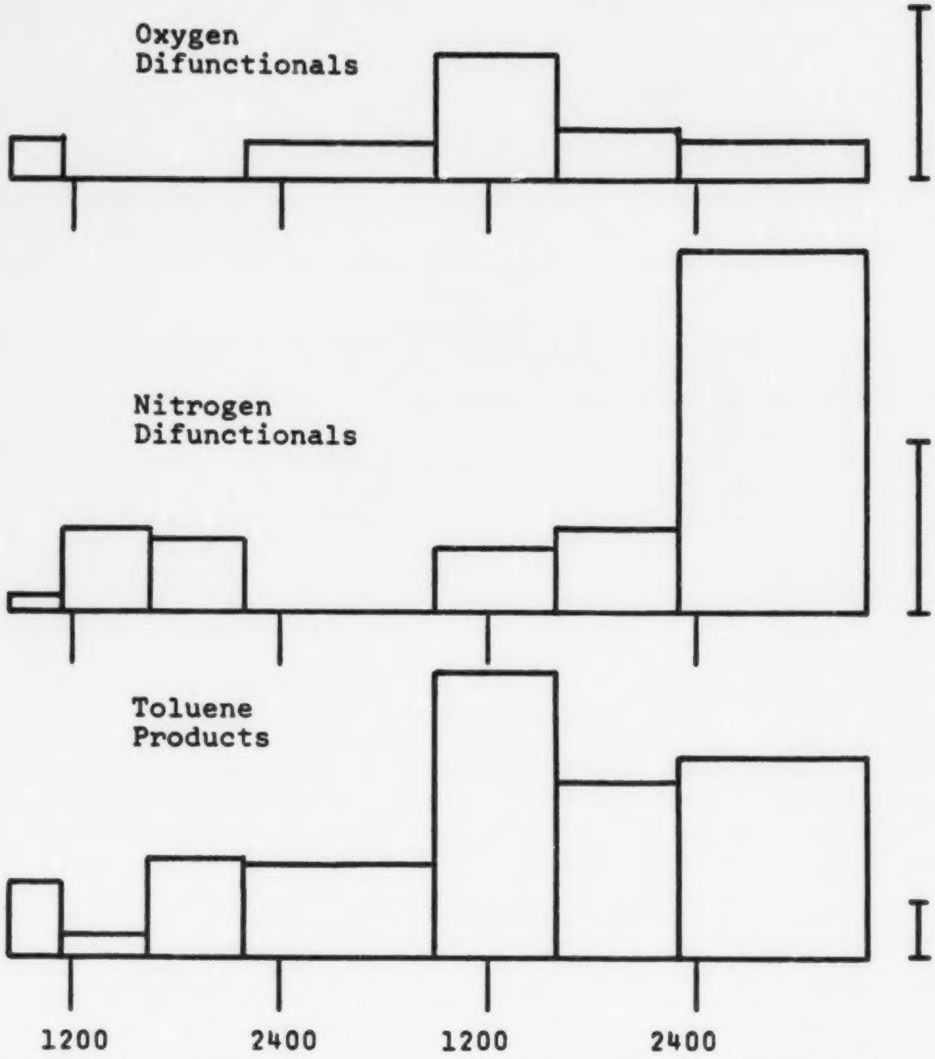
Vertical tics indicate 1 microgram per cubic meter.

FIGURE 7. DIURNAL VARIATIONS OF SOME OXYGEN DIFUNCTIONAL COMPOUNDS AT WEST COVINA.



Vertical tics indicate 2 micrograms per cubic meter.

FIGURE 8. TOTAL OXYGEN DIFUNCTIONAL COMPOUNDS EXCEPT DIACIDS.



Vertical tics indicate 1 microgram per cubic meter.

FIGURE 9. DIURNAL VARIATIONS AT SEATTLE. OXYGEN AND NITROGEN DIFUNCTIONALS, TOLUENE PRODUCTS.

It does not appear that the methodology used in this report can be made to produce significantly greater information.

Nitrogen-Containing Difunctional Compounds. In addition to the difunctional compounds discussed above, we have searched for the occurrence of ions corresponding to the parent (unfragmented) ions of a number of nitrogen-containing species. Five types of compounds are involved with varying carbon chain lengths:

1. Carboxy acid - alkyl nitrate
2. Aldehyde - alkyl nitrate and/or acid - alkyl nitrite
3. Carboxy acid - acyl nitrate and/or acid - peracyl nitrite
4. Aldehyde - acyl nitrate and/or acid - acyl nitrite
5. Aldehyde - acyl nitrite

As for the oxygen difunctional compounds, we do not have mass spectra for the pure compounds and the identifications are uncertain. Again, there is possible "crosstalk" among the entries. We have arbitrarily assigned the same sensitivity factors as were assigned to the oxygen difunctional compounds. These compounds, whatever they are, occur together. Sites that are high for one compound are high for others. All of these ions were found in West Covina, Washington University in 1973, and at Holiday Inn in 1973. Many of the compounds were found in nearly all samples at these sites. Lesser amounts were found at other stations, but traces were found for some of the compounds at all stations. The six-carbon chain carboxy acid - nitrate compound has been reported by Schwartz (11) as a product of the reaction of cyclohexene in smog chamber studies.

Average amounts of nitrogen difunctional compounds are given in Table 12. The abundance of nitrogen compounds is usually about one half that of the difunctionals containing oxygen only. The Seattle samples are quite different in that larger amounts of nitrogen species are found. The Seattle data do not have good time resolution and none of the compounds is found in all samples.

Distributions by compound type at the four stations showing large amounts of nitrogen difunctionals are given in Table 14. The distributions are similar for all four stations.

Table 14.

Distribution of Nitrogen Difunctionals

Site	Acid-Nitrate	Aldehyde-Nitrate	Acid-Acyl Nitrate	Aldehyde-Acyl Nitrate	Aldehyde-Acyl Nitrite
West Covina	18%	39%	6%	28%	8%
Wash. U. 73	30%	26%	2%	28%	3%
Holiday Inn	33%	29%	2%	27%	7%
Seattle	22%	42%	4%	31%	2%

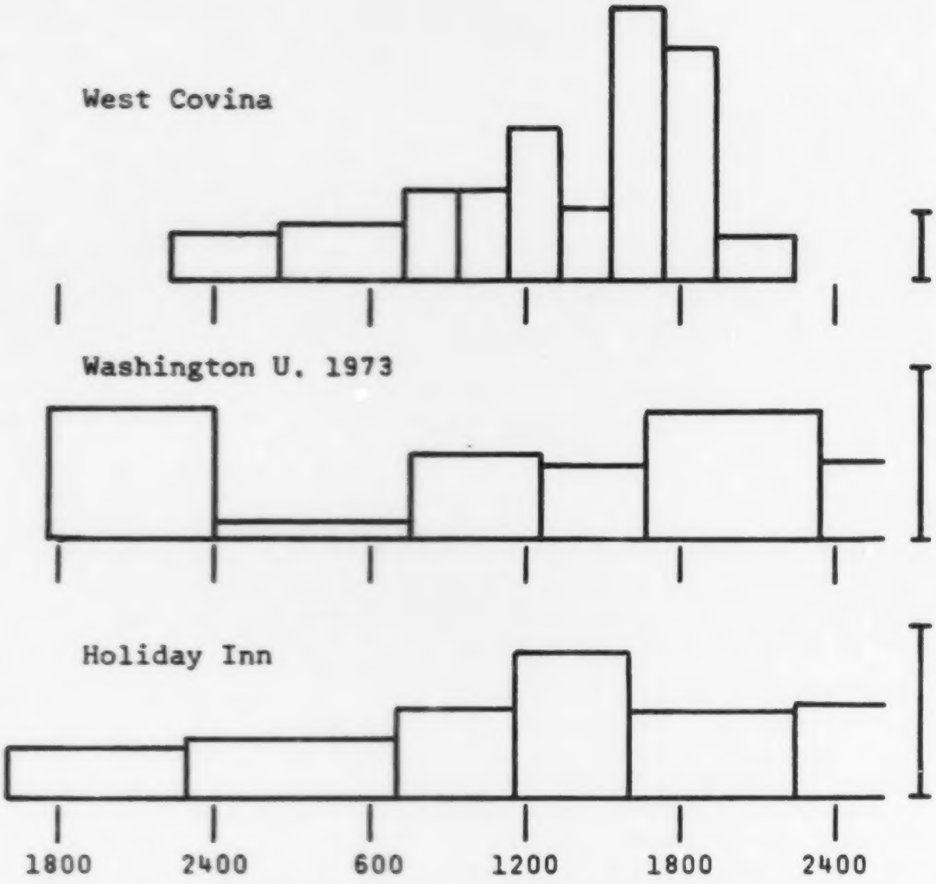
It is unfortunate that we do not have good time resolution at any of the sites showing large amounts, except at West Covina. Diurnal variations in total nitrogen difunctionals are shown in Figs. 9 and 10. Nitrogen difunctionals do not correlate with oxygen difunctionals. The variation with time of day varies with the site. At Holiday Inn the maximum occurs in the afternoon, as would be expected from photochemical activity, but the peak is very unimpressive. At Washington University in 1973, the largest amounts were found late at night. Diurnal variations for classes of nitrogen difunctional compounds are given for the West Covina station in Fig. 11. This is the only station having good time resolution and large amounts of material. Large and erratic changes in abundances occur, but large amounts occur in the late afternoon.

The nitrogen-containing difunctional compounds are similar to the oxygen difunctionals in that they show rapid changes in abundance, with little discernable pattern in the variations. We do not believe that this is largely error in measurement technology, since, at West Covina and elsewhere, smoother variations in other kinds of compounds were found. These compounds are probably formed and decompose rather rapidly; they may be intermediates in reactions to form more stable molecules.

The data for both kinds of difunctional compounds at West Covina should be compared with ozone and nitrogen oxides data. At this writing, we do not have this data.

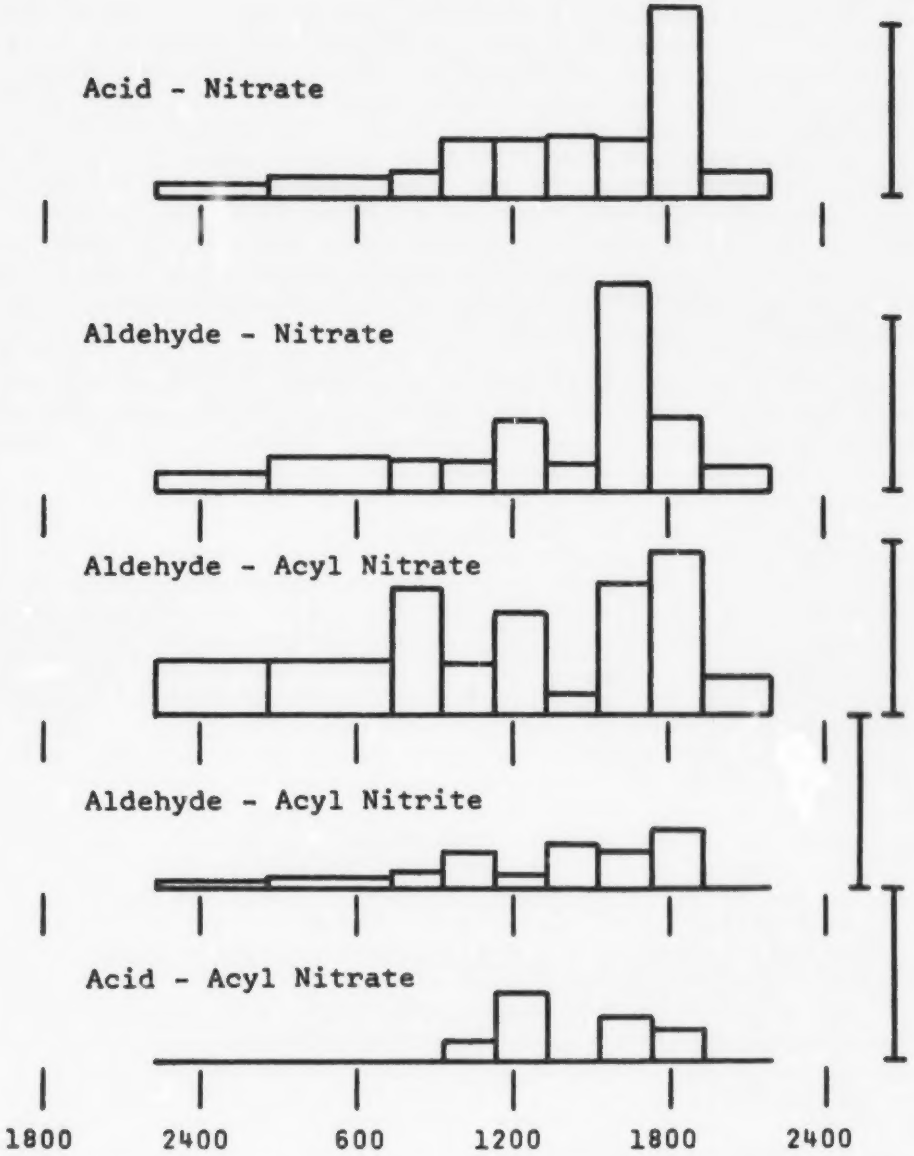
PRODUCTS OF TOLUENE.

Schwartz (11) has identified eight compounds formed from toluene in smog chambers. We have entered into the compound files the parent ions for each of these. The last two ($C_7H_7NO_4$ and NITROCRESOLS) are aromatic rings with certain positions of ring-substituted hydroxyl and nitro



Vertical tics indicate 1 microgram per cubic meter.

FIGURE 10. TOTAL NITROGEN DIFUNCTIONAL COMPOUNDS.

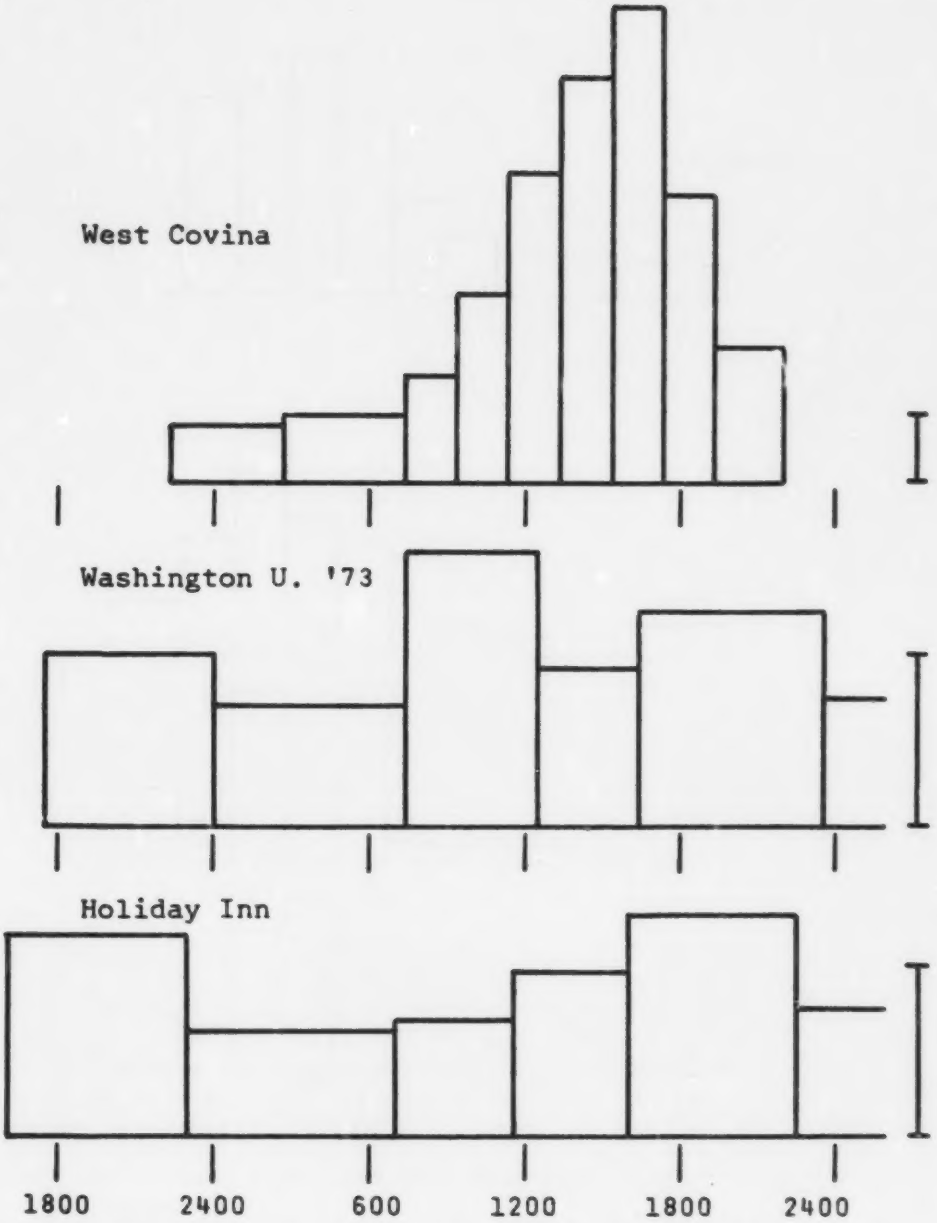


Vertical tics indicate 1 microgram per cubic meter.

FIGURE 11. POSSIBLE NITROGEN DIFUNCTIONAL COMPOUNDS AT WEST COVINA.

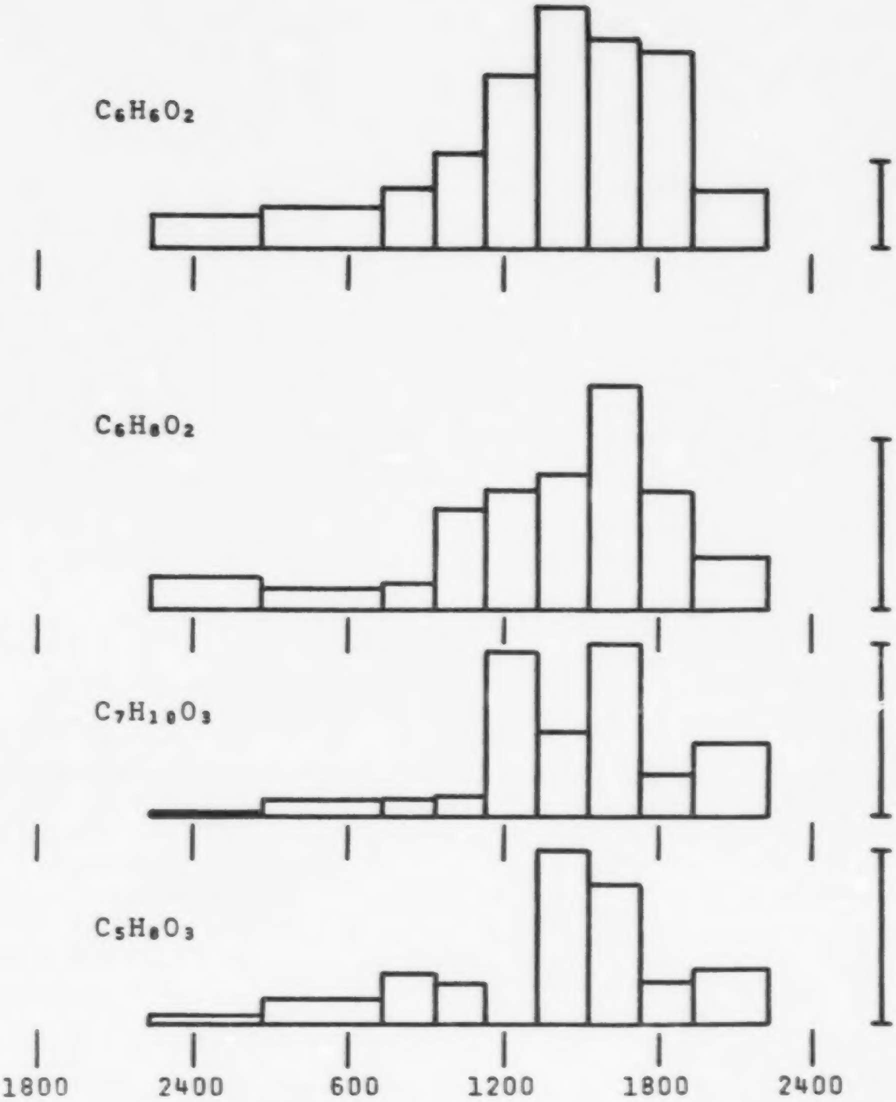
groups. The other compounds are not aromatic. We have not prepared these compounds, nor do we find mass spectra reported with sufficient information to provide sensitivity factors. We have assigned to these compounds the same sensitivity as was assigned to the difunctional compounds, except for the two ring nitro compounds. We have assigned 10 times the sensitivity for these compounds to reflect the usual tendency for aromatic nitro compounds to form strong parent ions. If the same sensitivity factors had been used as for the rest of this series, the results reported on the two ring nitro compounds would have been 10 times greater. The very small amounts of ring nitro compounds reported here may reflect a misjudgement in assignment of sensitivity factors.

There is a large possibility that some of these ions arise from fragmentation of other molecules. The members of this class do appear to occur together, however, in the samples run. The compounds were included primarily to see if there is evidence that the compounds reported by Schwartz really occur in real aerosols. We believe that the work here provides good evidence that the smog chamber work is a good model of real aerosols. The first three compounds in the file, $C_6H_6O_2$, $C_6H_8O_2$ and $C_7H_{10}O_2$, were detected in all of the samples at West Covina, Holiday Inn, and Washington University 1973, while the fourth, $C_5H_8O_3$, was missing only once at these sites. The first three compounds were also found in the majority of samples at all other sites. All eight compounds were detected, usually in several samples, at West Covina, Holiday Inn, Washington University 1973, and Seattle. At least some of the eight compounds were detected at all stations. Average values of total toluene products at various stations are shown in Table 12. It should be noted that the compound $C_5H_8O_3$ should also contain contributions from the five-carbon chain oxygen difunctional compound with aldehyde and carboxy acid functions. The distribution of abundances of these compounds at the sites rich in these compounds is given in Table 15. The distribution is about the same for all. Diurnal variations of total toluene products are shown for several sites in Figs. 9 and 12. No significant pattern is discernible. As is the case with other compounds, the data at West Covina provide more information. The diurnal variations shown in Fig. 13 for the more abundant compounds and for the total toluene derivatives show a well-defined afternoon maximum, with low levels at night. This strengthens the case for photochemical formation of these compounds. It appears that photochemical reaction of toluene contributes about as much to atmospheric aerosol as does



Vertical tics indicate 2 micrograms per cubic meter.

FIGURE 12. POSSIBLE TOLUENE PRODUCTS.



Vertical tics indicate 2 micrograms per cubic meter.

FIGURE 13. SOME POSSIBLE TOLUENE PRODUCTS
AT WEST COVINA.

Table 15.

Distribution of Toluene Products

	West Covina	Seattle	Wash. U. 73	Holiday Inn	Dominguez
$C_6H_6O_2$	43%	42%	41%	42%	52%
$C_6H_8O_2$	32%	32%	25%	28%	32%
$C_7H_{10}O_2$	12%	12%	16%	10%	9%
$C_5H_8O_3$	10%	11%	13%	17%	5%
$C_5H_6O_4$	2%	0.5%	2%	2%	2%
$C_6H_8O_4$	1%	0.5%	3%	1%	0
$C_7H_7NO_4$	0.2%	2%	0.08%	0.06%	0
Nitrocresol	0.05%	0.2%	0.1%	0.06%	0

photochemical formation of diacids from cyclic olefins, assuming that our assignments of sensitivity factors are reasonable. The contribution of the ring nitro compounds appears to be very small, even if the sensitivity factors for these are reduced by a factor of 10. The presence of many of the compounds at some stations late at night suggests that some are fairly stable.

PRODUCTS OF TERPENES.

We have looked for occurrences of six parent ions, corresponding to possible secondary compounds formed from reactions of terpenes in the atmosphere. These ions have the formulas $C_9H_{14}O_2$, $C_{10}H_{16}O_2$, $C_{10}H_{14}O_3$, $C_{10}H_{16}O_3$, $C_8H_{12}O_4$ (norpinic acid?), and $C_9H_{14}O_4$ (pinic acid?). The first four of these have been identified by Schwartz (11) as being formed from alpha pinene in smog chamber reactions. The last two are also possible terpene products in that they have been found in this work only at sites where fair amounts of the first four were found.

As for the toluene products, there is opportunity for many misidentifications in relation to these compounds. One can suggest many molecules capable of producing these ions, and some of the molecules identified by Schwartz would be expected to contribute to the parent ions of other terpene products by fragmentation.

These compounds were found mainly at sites where large amounts of other, presumably secondary, compounds of photochemical origin (di-acids, oxygen and nitrogen difunctionals, and toluene products) were found. These possible terpene products were found mostly at West Covina, Washington University in 1973, and Holiday Inn. Only occasional traces were found at Seattle, despite the large forest areas surrounding this site. The Seattle samples were taken in the fall, with relatively low temperatures. The low terpene products found may merely reflect the low vapor pressures of terpenes, and low emissions. It is unfortunate that we cannot determine terpenes themselves. The Seattle site is peculiar also in that the abundance of oxygen difunctionals is low, but abundance of nitrogen difunctionals and toluene products is high.

The six possible terpene products were not detected as consistently at the above sites as were toluene products. The four compounds identified by Schwartz occur in most, but not all, of the West Covina, Washington University 1973, and Holiday Inn sites. Diurnal variations are erratic, and the four compounds do not follow each other at all well. The relative distributions among the compounds are not consistent from site to site, as shown in Table 16.

Table 16.

Distribution of Possible Terpene Products

	West Covina	Wash. U. 1973	Holiday Inn
$C_9H_{14}O_2$	37%	25%	32%
$C_{10}H_{16}O_2$	21%	11%	9%
$C_{10}H_{14}O_3$	20%	43%	20%
$C_{10}H_{16}O_3$	10%	7%	19%
$C_8H_{12}O_4$	10%	14%	12%
$C_9H_{14}O_4$	3%	1%	8%

Total average terpene products for various sites are shown in Table 12.

Overall, only slight evidence is found of the presence of these terpene products, and the compounds detected could have arisen from other sources. Certainly, the evidence is less satisfactory than that for toluene products. It appears that, at least for the sites studied, terpenes do not contribute heavily to secondary compounds in aerosols. It is unfortunate that we do not have data from eastern mountain sites in the summer; there terpene chemistry may be more important.

INORGANIC COMPOUNDS.

Although the methods used in this work were designed to study organic molecules in aerosols, a few inorganic compounds can be measured since they are sufficiently volatile to be introduced into the mass spectrometer. It is very easy to program the computer to report these, with negligible increase in processing time, so they have been included although they are not a major interest in this work.

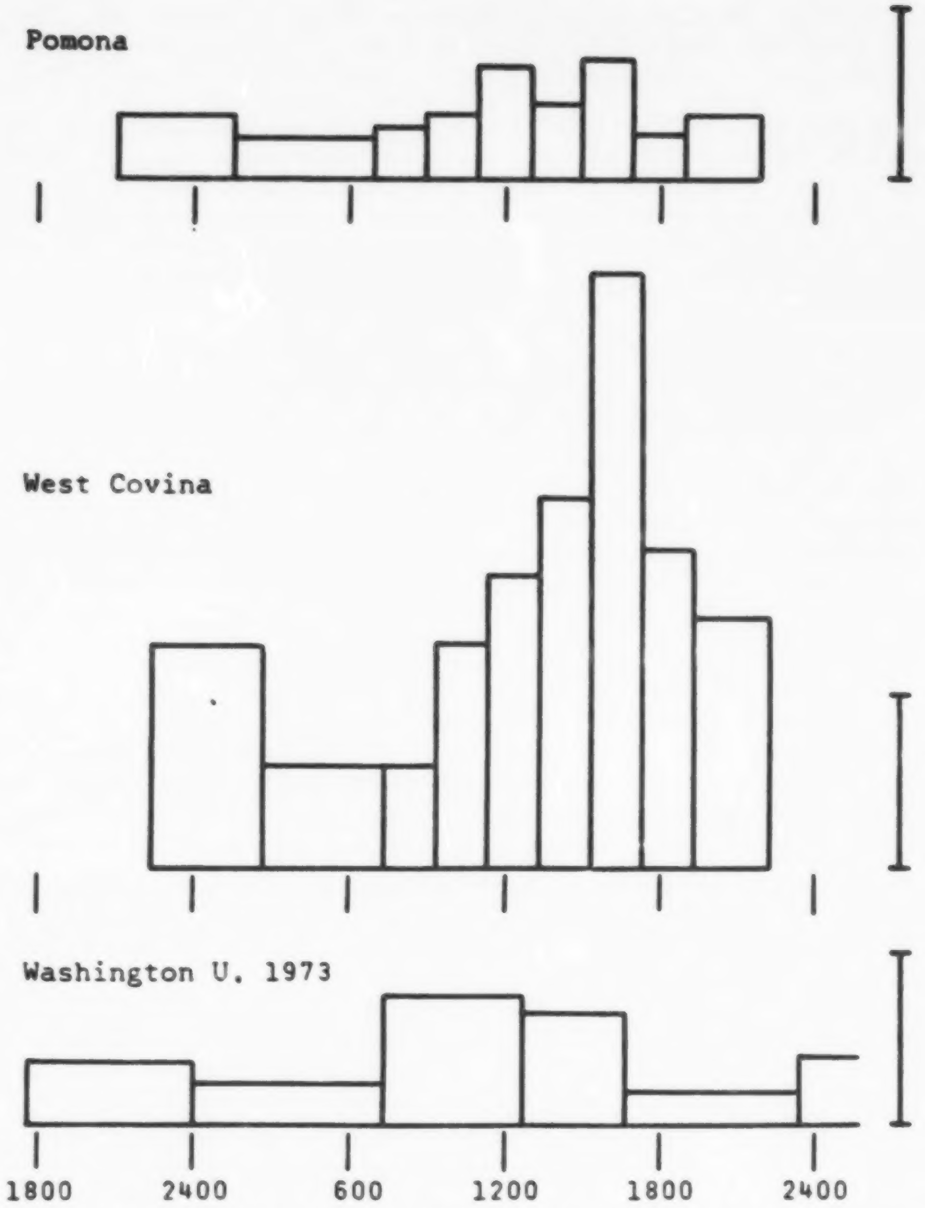
Sulfates. The amounts of sulfates are reported on the basis of the intensity of the SO fragment, confirmed by the SO_2 peak. We cannot distinguish between free sulfuric acid and ammonium sulfates. Sulfates are, as expected, the most abundant single species, in most aerosols, that is reported in this work. Diurnal variations are shown in Figs. 14 and 15.

We do not regard mass spectroscopy as a suitable way to determine sulfates, although agreement with other observations is fairly good.

Chlorides. We report (as ammonium chloride) the abundance of the HCl peak, confirmed by the Cl peak using the Cl_{35} isotope. We assume that these ions arise from ammonium chloride; the primary basis for the assumption is that this is the only likely inorganic chloride, other than hydrochloric acid, that we have found to be volatile enough to be detected. It appears unlikely that free hydrochloric acid is present in any substantial amounts in aerosols. It is possible that organic chlorides could be contributors to these peaks, but we have been unable to detect significant amounts of such compounds. Ammonium chloride shows excellent mass thermograms, which help to distinguish it from other compounds.

Ammonium and Sodium Nitrates. These are reported on the basis of the abundance of the NO_2 peak and are confirmed by the NO peak. The separation between ammonium and sodium salts is based upon the time-temperature of volatilization from the probe. Ammonium nitrate is much more volatile than other nitrates. The data for sodium nitrate would include other non-volatile nitrates. We do not know whether sodium nitrate produces NO_2 by evaporation and subsequent ionization, or by thermal decomposition on the probe. Some diurnal variations for ammonium nitrate are shown in Fig. 16.

Arsenious Oxide. This laboratory had detected arsenious oxide in Seattle aerosol using the methods described above, but prior to the start of this project. Its identity was well established from the characteristic fragmentation pattern of As_4O_6. We have not detected the compound since, but we have little Seattle data.



Pomona

West Covina

Washington U. 1973

Vertical tics indicate 20 micrograms per cubic meter.

FIGURE 14. SULFATES AS SULFURIC ACID.

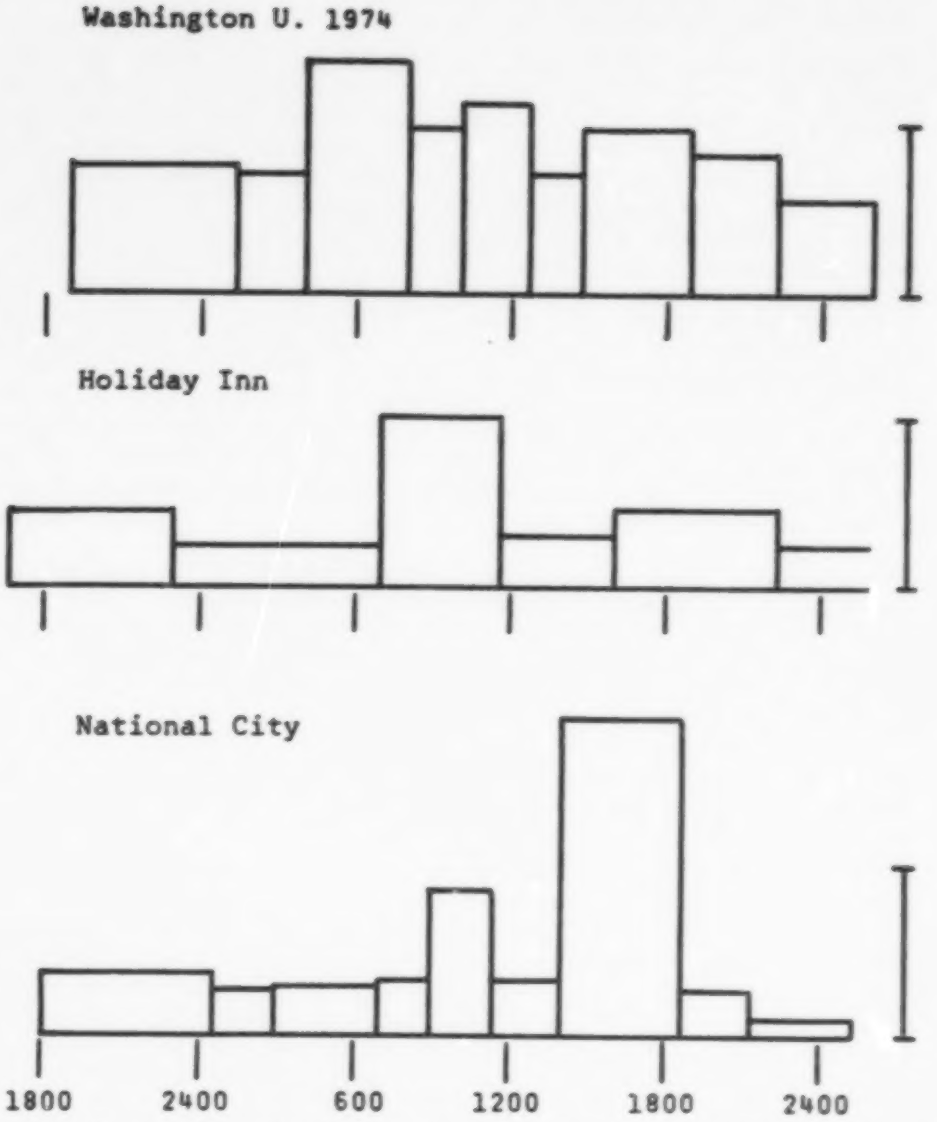
Lead. We have regularly looked for ions of the isotopes of lead, but have found none.

CHLORINATED COMPOUNDS.

Extensive data have been published on the mass spectra of a number of chlorine-containing pesticides and chlorinated biphenyls (20). These compounds should be relatively easy to distinguish from other types because chlorine isotopes are quite mass deficient; that is, the masses in atomic mass units are much less than integers. Of the elements usually involved in this work, only oxygen and sulfur are mass deficient, and these are only slightly so. Thus, compounds containing large amounts of chlorine should produce ions of less than unit mass. This effect would be nullified, if the ion contains much hydrogen, since this atom is considerably greater than unit (1.0078 a.m.u.).

We have included in the compound files, ions reported as being formed in the mass spectra of a number of pesticides and polychlorinated biphenyls to see if evidence of their presence would be found.

The reports show occasional occurrences of a few of these compounds. We believe these to be artifacts. The most commonly reported compound, C_5H_5Cl (heptachlor fragment?), can arise as a major fragment in the mass spectra of several polychlorinated methanindenes. This ion is not mass deficient because of the high hydrogen-to-chlorine ratio, and it is easily confused with other ions, not containing chlorine. It is also possible that some of these compounds represent chlorine-containing impurities in the perfluorokerosene used in the mass spectrometer ion source as a mass marker.



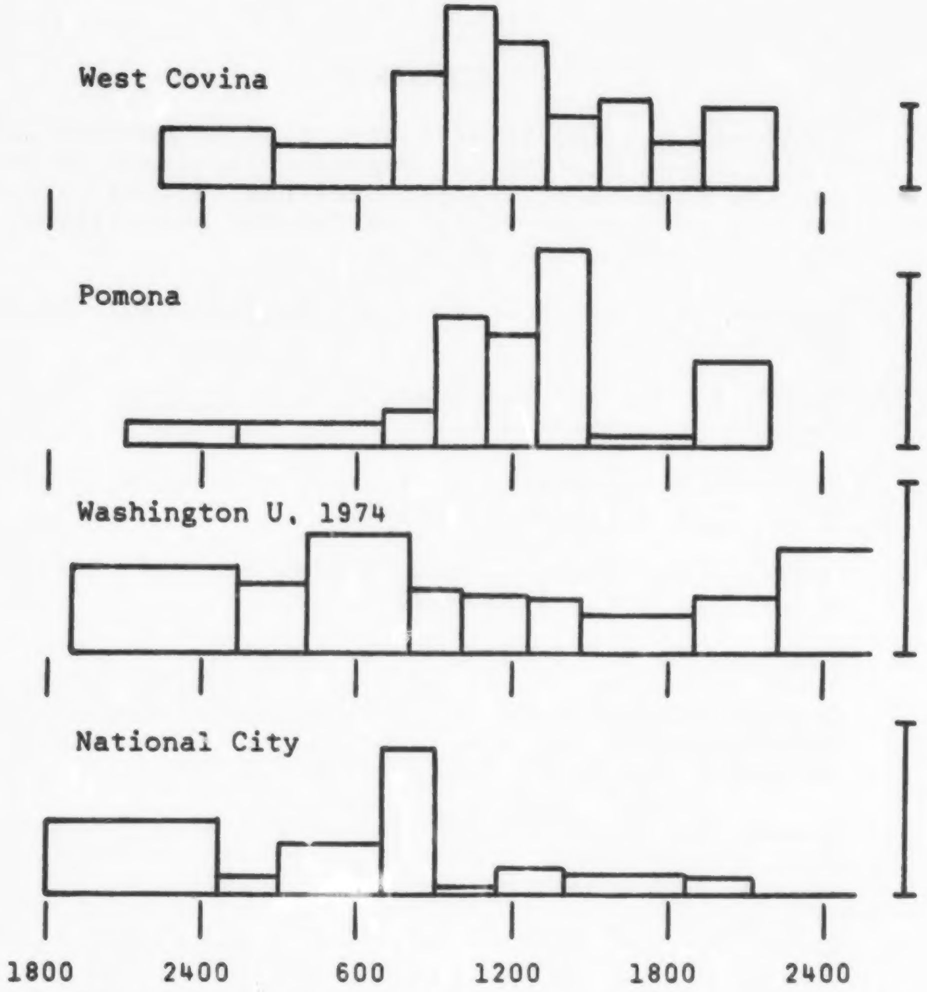
Washington U. 1974

Holiday Inn

National City

Vertical tics indicate 20 micrograms per cubic meter.

FIGURE 15. SULFATES AS SULFURIC ACID.



Vertical tics indicate 2 micrograms per cubic meter.

FIGURE 16. SOME DIURNAL VARIATIONS IN AMMONIUM NITRATE.

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APPENDIX

This appendix contains computer prepared and printed results of the analyses of the samples mentioned in Section IX and represents the entire data base upon which the preceeding discussions are based. The data have not been edited in any way and may contain errors. The identities of some compounds are uncertain. Some very low concentrations reported correspond to signals only slightly above instrument noise levels. The data should not be used without consideration of the material in Sections VII and X.

The compounds for which searches were made are shown in the compound files included in this appendix. All of the samples were examined for evidence of each of the compounds. A report of a compound file title without following results simply indicates that searches were made for the compounds in that file, but none were found.

The second, third, and fourth lines at the beginning of each report contain data to locate the spectra on magnetic tape and are not of importance to the results. The date shown on the fourth line is not the date of sampling, but is an index used to identify spectra.

All results are stated in micrograms of compound per cubic meter of air.

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```
THERE ARE 0017 COMPOUNDS IN FILE 0051, DATED 082575
STD. IS MASS 0201. 9454 IN O-BROMOBENZOIC ACID

 HYDROCARBONS

          COMPOUND         PARENT MASS CODE  T1   T2
IDENT  MASS SENS. SECOND MASS  RATIO THIRD MASS   RATIO

TOTAL ALKANES           CL 0000.0000 0000 0000 4000
0071.0860 0.114E+2

ALKANES LOW MW          CL 0000.0000 0000 0000 0300
0085.1016 0.893E+1

ALKANES MED. MW         CL 0000.0000 0000 0310 0600
0085.1016 0.800E+1

ALKANES HI MW           CL 0000.0000 0000 0610 4000
0085.1016 0.765E+1

TOTAL ALKENES              0000.0000 0000 0000 4000
0069.0704 0.114E+2

ALKENES LOW MW          CL 0000.0000 0000 0000 0270
0083.0860 0.893E+1

ALKENES MED. MW         CL 0000.0000 0000 0270 0510
0083.0860 0.800E+1

ALKENES HI MW           CL 0000.0030 0000 0510 4000
0083.0860 0.765E+1

ALPHA PINENE               0136.1250 0000 0000 4000
0121.1016 0.200E+1 0136.1250 0.500E+0

TERPENES AS PINENE      CL 0136.1250 0000 0000 4000
0093.0704 0.860E+1

XYLENES,MON SUB BENZENES CL 0000.0000 0000 0000 4000
0091.0548 0.175E+2

XYLENES, ETHYL BENZENE  CL 0106.0782 0000 0000 4000
0106.0782 0.803E+1

ALKYL BENZENES C9H12    CL 0120.0938 0000 0000 4000
0119.0860 0.177E+1

ALKYL BENZENES C10H14   CL 0134.1094 0000 0000 4000
0134.1094 0.423E+1

BIPHENYL                 1 0154.0782 0000 0000 0400
0154.0782 0.159E+2 0153.0704 0.259E+0 0152.0626 0.209E+0

DIPHENYL METHANE+ISOMERS CL 0168.0938 0000 0000 1000
0168.0938 0.655E+1 0167.0860 0.870E+0 0165.0704 0.330E+0
```

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FILE NO. 0051. PAGE 02
        COMPOUND            PARENT MASS CODE  T1   T2
IDENT  MASS SENS. SECOND MASS  RATIO THIRD MASS   RATIO

DIPHENYL ETHANE & ISOMERS L 0182.1094 0000 0000 1000
0182.1094 0.364E+1
```

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THERE ARE 0010 COMPOUNDS IN FILE 0052  DATED 082575
STD  IS MASS 0201  9454 IN P-BROMOBENZOIC ACID

 POLYCYCLIC HYDROCARBONS

        COMPOUND              PARENT MASS CODE  T1    T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD MASS   RATIO

NAPHTHALENE                  1 0128 0626 0000 A000 0600
0128 0626 0 200E+2 0127 0540 0 109E+0 0129 A660 0 109E+0

METHYL NAPHTHALENES+INT   L 0142 0782 0000 A000 0600
0142 0782 0 109E+2 0141 0704 0 719E+0 0115 A548 0 250E+0

ALKYL NAPHTHALENES C12H12 L 0156 0938 0000 A000 0600
0156 0938 0 900E+1 0141 0704 0 700E+0

ANTHRACENE-PHENANTHRENE   L 0178 0782 0000 A000 0800
0178 0782 0 109E+3 0176 0626 0 169E+0

PYRENE & ISOMERS C16H10   L 0202 0782 0000 A000 0600
0202 0782 0 709E+1 0101 0790 0 250E+0 0203 A816 0 169E+0

CHRYSENE, ISOMERS C18H12  L 0228 0938 0000 A000 0600
0228 0938 0 500E+1 0226 0782 0 219E+0

PERYLENE, ISOMERS C20H12  L 0252 0938 0000 A000 0600
0252 0938 0 999E+1 0253 0970 0 199E+0 0250 A782 0 219E+0

BENZOPERYLENE+INTERFER    E 0276 0938 0000 A000 0800
0276 0938 0 600E+1

DIBENZANTHRACENES C22H14  E 0278 1094 0000 A000 0800
0278 1094 0 500E+1 0276 0938 0 199E+0 0279 A128 0 239E+0

CORONENE?                 E 0300 0938 0000 A000 1000
0300 0938 0 500E+1
```

```
THERE ARE 0008 COMPOUNDS IN FILE 0053  DATED 082575
STD  IS MASS 0201  9454 IN O-BROMOBENZOIC ACID

 AROMATIC OXYGENATED CPDS

          COMPOUND           PARENT MASS CODE  T1   T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD MASS   RATIO

CRESOLS (BENZYL ALCOHOL?)CL 0108 0574 0000 0000 4000
0108 0574 0 159E+2 0107 0436 0 999E+0

PHENOL+NO2,CHO,CO2H?   EST  0000 0000 0000 0000 4000
0093 0340 0 300E+1

TRIMETHYLPHENOL+ISOMERS EST 0136 0888 0000 0000 4000
0136 0888 0 350E+1

DIHYDROXYBENZENES          1 0110 0368 0000 0000 4000
0110 0368 0 839E+1

BENZOQUINONE               L 0108 0210 0000 0000 4000
0108 0210 0 550E+1

NAPHTHOQUINONE?         EST  0158 0368 0000 0000 4000
0158 0368 0 500E+1

BENZALDEHYDE (+INTERF.)    L 0106 0418 0000 0000 0600
0106 0418 0.779E+1 0105 0340 0 999E+0 0077 0390 0 109E+1

PHENOL                     1 0094 0418 0000 0000 0600
0094 0418 0 998E+1 0066 0460 0.299E+0 0065 0390 0 250E+0
```

```
THERE ARE 0009 COMPOUNDS IN FILE 0054. DATED 082575
STD. IS MASS 0201.9454 IN O-BROMOBENZOIC ACID

 CARBOXYLIC ACIDS

         COMPOUND          PARENT MASS CODE  T1   T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD MASS   RATIO

BENZOIC ACID               2 0122.0366 0000 0000 0910
0122.0366 0.900E+1 0105.0340 0.129E+1 0077.0390 0.120E+1

METHYL BENZOIC ISOMERS EST  0136.0524 0000 0000 0600
0136.0524 0.350E+1 0091.0540 0.109E+1

ETHYL BENZOIC ISOMERS  EST  0150.0680 0000 0000 0600
0150.0680 0.350E+1 0091.0540 0.269E+1

TRIMETHYL BENZOIC ISOM  EST 0164.0836 0000 0000 0600
0164.0836 0.350E+1

PENTANDIOIC ACID       EST  0132.0422 0000 0000 0600
0086.0368 0.449E+0 0132.0422 0.999E-2

HEXANDIOIC ACID            4 0146.0578 0000 0200 0800
0100.0524 0.379E+0 0146.0578 0.999E-2

METHYLHEXANDIOIC ACID      1 0160.0736 0000 0200 0800
0114.0680 0.449E+0 0160.0736 0.999E-2

BENZOYL ION (ARBITRARY)     0000 0000 0000 0000 4000
0105.0340 0.400E+1

ACIDS (AS ACETIC ACID)  EST 0000 0000 0000 0000 4000
0060.0210 0.500E+1
```

```
THERE ARE 0014 COMPOUNDS IN FILE 0055, DATED 082575
STD. IS MASS 0201.9454 IN O-BROMOBENZOIC ACID

 NITROGEN COMPOUNDS

          COMPOUND          PARENT MASS CODE  T1   T2
IDENT  MASS SENS. SECOND MASS  RATIO THIRD MASS   RATIO

CH2CN FRAGMENT (RELATIVE)   0000.0000 0000 0000 4000
0040.0186 0.999E+0

CONH FRAGMENT (RELATIVE)    0000.0000 0000 0000 4000
0043.0058 0.999E+0

C3H5N2 FRAGMENT (RELATIVE)  0000.0000 0000 0000 4000
0069.0452 0.999E+0

CH2NO3 FRAGMENT (RELATIVE)  0000.0000 0000 0000 4000
0076.0034 0.200E+1 0045.9928 0.300E+1 0029.9980 0.999E+0

C4H8N2 FRAGMENT (RELATIVE)  0000.0000 0000 0000 4000
0084.0686 0.999E+0

C4H9N2 FRAGMENT (RELATIVE)  0000.0000 0000 0000 4000
0085.0764 0.999E+0

PYRIDINE + PYRIDYL CPDS   L 0079.0422 0000 0000 0600
0079.0422 0.149E+2 0052.0186 0.729E+0 0051.0108 0.379E+0

PIPERIDINES (+ISOMERS)  EST 0085.0890 0000 0000 4000
0084.0812 0.998E+1

CARBAZOLE                 L 0167.0734 0000 0000 0600
0167.0734 0.119E+2 0166.0656 0.169E+0

ACRIDINE & ISOMERS        L 0179.0734 0000 0000 0600
0179.0734 0.919E+1 0178.0656 0.199E+0 0180.0768 0.139E+0

QUINOLINE (-INTERFER?)    L 0129.0578 0000 0000 0600
0129.0578 0.134E+2 0102.0468 0.219E+0 0128.0500 0.169E+0

PIPERAZINE?             EST 0086.0844 0000 0000 4000
0086.0844 0.998E+1 0085.0764 0.169E+1

NITRONAPHTHALENE        EST 0173.0476 0000 0000 4000
0173.0476 0.199E+2

PYRIDINE SULFATE        EST 0177.0094 0000 0000 4000
0177.0094 0.150E+1
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THERE ARE 0026 COMPOUNDS IN FILE 0056, DATED 082575
STD. IS MASS 0201 .9454 IN O-BROMOBENZOIC ACID

 POSSIBLE SEC. DIFUNCTIONALS

          COMPOUND          PARENT MASS CODE  T1    T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD MASS   RATIO

C7H1204 (METHYL ADIPIC) DUP 0160 0736 0000 0000 4000
0160 0736 0.499E-1

C8H503 (PHTHALATES)         0000 0000 0000 0000 4000
0149 0238 0.999E+0

C7H1403 ISOMERS         EST 0146 0942 0000 0000 4000
0146 0942 0.999E+0

C6H1004 (ADIPIC ACID)   DUP 0146 0578 0000 0000 4000
0146 0578 0.499E-1

C7H1203 ISOMERS         EST 0144 0786 0000 0000 4000
0144 0786 0.999E+0

C6H1203 ISOMERS         EST 0132 0786 0000 0000 4000
0132 0786 0.999E+0

C5H804 (GLUTARIC ACID?) EST 0132 0422 0000 0000 4000
0132 0422 0.499E-1

C7H1402 ISOMERS         EST 0130 0994 0000 0000 4000
0130 0994 0.999E+0

C6H1003 ISOMERS         EST 0130 0630 0000 0000 4000
0130 0630 0.999E+0

C7H1202 ISOMERS         EST 0128 0836 0000 0000 4000
0128 0836 0.999E+0

C5H1003 ISOMERS         EST 0118 0630 0000 0000 4000
0118 0630 0.999E+0

C4H604 (SUCCINIC ACID?) EST 0118 0266 0000 0000 4000
0118 0266 0.499E-1

C6H1202 ISOMERS         EST 0116 0836 0000 0000 4000
0116 0836 0.999E+0

C5H1002 ISOMERS         EST 0102 0680 0000 0000 4000
0102 0680 0.999E+0

HOOC(CH2)5NO2           EST 0177 0636 0000 0000 4000
0177 0636 0.999E+0

HOOC(CH2)4NO2           EST 0163 0480 0000 0000 4000
0163 0480 0.999E+0
```

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FILE NO. 0056, PAGE 02.
         COMPOUND           PARENT MASS CODE  T1   T2
IDENT  MASS SENS. SECOND MASS  RATIO THIRD MASS   RATIO

HCO(CH2)6ONO2+ISOMERS   EST 0175.0844 0000 0000 4000
0175.0844 0.999E+0

HCO(CH2)5ONO2+ISOMERS   EST 0161.0688 0000 0000 4000
0161.0688 0.999E+0

HCO(CH2)4ONO2+ISOMERS   EST 0147.0532 0000 0000 4000
0147.0532 0.999E+0

HOOC(CH2)4COONO2        EST 0191.0430 0000 0000 4000
0191.0430 0.999E+0

HOOC(CH2)3COONO2        EST 0177.0272 0000 0000 4000
0177.0272 0.999E+0

HCO(CH2)5COONO2+ISOMERS EST 0189.0636 0000 0000 4000
0189.0636 0.999E+0

HCO(CH2)4COONO2+ISOMERS EST 0175.0480 0000 0000 4000
0175.0480 0.999E+0

HCO(CH2)3COONO2+ISOMERS EST 0161.0324 0000 0000 4000
0161.0324 0.999E+0

HCO(CH2)4COONO          EST 0159.0532 0000 0000 4000
0159.0532 0.999E+0

HCO(CH2)3COONO          EST 0145.0374 0000 0000 4000
0145.0374 0.999E+0
```

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THERE ARE 0008 COMPOUNDS IN FILE 0057, DATED 082575
STD. IS MASS 0201.9454 IN O-BROMOBENZOIC ACID

 TENTATIVE TOLUENE PRODUCTS

         COMPOUND           PARENT MASS CODE  T1    T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD MASS   RATIO

C6H6O2 ISOMERS          EST 0110.0368 0000 0000 4000
0110.0368 0.999E+0

C6H8O2 ISOMERS          EST 0112.0524 0000 0000 4000
0112.0524 0.999E+0

C7H10O2 ISOMERS         EST 0126.0680 0000 0000 4000
0126.0680 0.999E+0

C5H8O3 ISOMERS          EST 0116.0472 0000 0000 4000
0116.0472 0.999E+0

C5H6O4 ISOMERS          EST 0130.0266 0000 0000 4000
0130.0266 0.999E+0

C6H8O4 ISOMERS          EST 0144.0422 0000 0000 4000
0144.0422 0.999E+0

C7H7NO4 ISOMERS         EST 0169.0374 0000 0000 4000
0169.0374 0.998E+1

NITROCRESOLS?             L 0153.0426 0000 0000 4000
0153.0426 0.998E+1
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THERE ARE 0006 COMPOUNDS IN FILE 0058, DATED 082575
STD. IS MASS 0201. 9454 IN O-BROMOBENZOIC ACID

 TENTATIVE TERPENE PRODUCTS

          COMPOUND        PARENT MASS CODE  T1   T2
IDENT. MASS SENS. SECOND MASS  RATIO THIRD MASS   RATIO

C9H1402 ISOMERS         EST 0154.0994 0000 0000 4000
0154.0994 0.999E+0

C10H1602 ISOMERS        EST 0168.1150 0000 0000 4000
0168.1150 0.999E+0

C10H1403 ISOMERS        EST 0182.0942 0000 0000 4000
0182.0942 0.999E+0

C10H1603 (PINONIC ACID?)EST 0184.1098 0000 0000 4000
0184.1098 0.999E+0

C8H1204 (NORPINIC ACID?)EST 0172.0736 0000 0000 4000
0172.0736 0.999E+0

C9H1404 (PINIC ACID?)   EST 0186.0892 0000 0000 4000
0186.0892 0.999E+0
```

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THERE ARE 0006 COMPOUNDS IN FILE 0059, DATED 082575
STD. IS MASS 0201.9454 IN O-BROMOBENZOIC ACID

 INORGANIC COMPOUNDS

          COMPOUND             PARENT MASS CODE  T1   T2
IDENT  MASS SENS  SECOND MASS  RATIO THIRD, MASS   RATIO

SULFATES AS SULFURIC ACID 4 0097.9670 0000 0000 4000
0047.9670 0.120E+1 0063.9618 0.500E+0

AMMONIUM CHLORIDE         3 0053.0030 0000 0000 0550
0035.9766 0.629E+1 0034.9688 0.999E-1

AMMONIUM NITRATE          2 0080.0222 0000 0000 0550
0045.9928 0.300E+1 0029.9980 0.400E+1

SODIUM NITRATE            1 0068.9830 0000 0550 4000
0045.9928 0.279E+1 0029.9980 0.419E+1

ARSENIOUS OXIDE           1 0395.6558 0000 0000 4000
0395.6558 0.589E+1 0288.7444 0.599E+0 0090.9164 0.199E+0

LEAD                    EST 0207.9766 0000 0000 4000
0207.9766 0.999E+0 0205.9744 0.449E+0 0206.9758 0.429E+0
```

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THERE ARE 0008 COMPOUNDS IN FILE 0060, DATED 082575
STD. IS MASS 0201.9454 IN O-BROMOBENZOIC ACID

 CHLORINATED COMPOUNDS

         COMPOUND            PARENT MASS CODE  T1   T2
IDENT. MASS SENS. SECOND MASS  RATIO THIRD MASS    RATIO

HEPTACHLOROBIPHENYL      EST 0391.8054 0000 0000 4000
0395.7794 0.200E+1 0397.7964 0.999E+0 0393.8024 0.500E+0

C12H4CL4 FRAG. PCB?      EST 0287.9066 0000 0000 4000
0289.9038 0.200E+1 0287.9066 0.750E+0 0291.9008 0.500E+0

C12H5CL3 FRAG. PCB?      EST 0253.9456 0000 0000 4000
0253.9456 0.200E+1 0255.9426 0.999E+0 0257.9398 0.330E+0

ISODRIN                  EST 0361.9756 0000 0000 4000
0192.9378 0.159E+1

ENDRIN & DIELDRIN        EST 0377.8706 0000 0000 4000
0262.8570 0.159E+1

DDT, DDD                 EST 0351.9150 0000 0000 4000
0235.0080 0.200E+1 0237.0052 0.669E+0

LINDANE                  EST 0287.8600 0000 0000 4000
0180.9378 0.159E+1

C5H5CL (HEPTACHLOR?)     EST 0000.0000 0000 0000 4000
0100.0080 0.200E+1 0102.0050 0.330E+0
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WEST COVINA 2220 TO 0220 PDT 7/24/73

 TB0197RV 2 FILTERS
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0030
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 644E +0 CUBIC METERS, ALIQUOT=0. 560E +0
INST. SENSITIVITY=0. 449E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

      CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.90 UGM./M↑3
ALKANES LOW MW              CL 0.21 UGM./M↑3
ALKANES MED. MW             CL 0.29 UGM./M↑3
ALKANES HI MW               CL 0.24 UGM./M↑3
TOTAL ALKENES                  1.1 UGM./M↑3

ALKENES LOW MW              CL 0.18 UGM./M↑3
ALKENES MED. MW             CL 0.47 UGM./M↑3
ALKENES HI MW               CL 0.50 UGM./M↑3
ALPHA PINENE                   1.1 UGM./M↑3
TERPENES AS PINENE          CL 0.54 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.53 UGM./M↑3
XYLENES, ETHYL BENZENE      CL 0.16 UGM./M↑3
ALKYL BENZENES C9H12        CL 1.9 UGM./M↑3
ALKYL BENZENES C10H14       CL 0.18 UGM./M↑3
BIPHENYL                     1 0.18 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.0075 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.028 UGM./M↑3

      CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.071 UGM./M↑3
METHYL NAPHTHALENES+INT.    L 0.022 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.033 UGM./M↑3
ANTHRACENE-PHENANTHRENE     2 0.0093 UGM./M↑3
PYRENE & ISOMERS C16H10     L 0.010 UGM./M↑3

PERYLENE, ISOMERS C20H12    L 0.0043 UGM./M↑3
DIBENZANTHRACENES C22H14    E 0.017 UGM./M↑3

      CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.055 UGM./M↑3
PHENOL+NO2,CHO,CO2H?    EST. 0.28 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.21 UGM./M↑3
DIHYDROXYBENZENES           1 0.096 UGM./M↑3
BENZOQUINONE                L 0.032 UGM./M↑3

NAPHTHOQUINONE?         EST  0.024 UGM./M↑3
BENZALDEHYDE (+INTERF.)     L 0.039 UGM./M↑3
PHENOL                      1 0.063 UGM./M↑3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.017 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.042 UGM /M↑3
ETHYL BENZOIC ISOMERS  EST. 0.045 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.049 UGM./M↑3
PENTANDIOIC ACID       EST. 1.2 UGM./M↑3

HEXANDIOIC ACID           4 2.0 UGM./M↑3
METHYLHEXANDIOIC ACID     1 1.1 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.37 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.53 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.78 UGM./M↑3
CONH FRAGMENT (RELATIVE)    4.2 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.17 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.037 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.33 UGM./M↑3

PYRIDINE + PYRIDYL CPDS   L 0.0064 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.072 UGM /M↑3
ACRIDINE & ISOMERS        L 0.010 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0041 UGM./M↑3
PIPERAZINE?             EST 0.0037 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.62 UGM./M↑3
C8H5O3 (PHTHALATES)         3.0 UGM./M↑3
C7H14O3 ISOMERS         EST 0.062 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 1.8 UGM./M↑3
C7H12O3 ISOMERS         EST 0.29 UGM./M↑3

C6H12O3 ISOMERS         EST 0.031 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 2.2 UGM./M↑3
C7H14O2 ISOMERS         EST 0.031 UGM /M↑3
C6H10O3 ISOMERS         EST 0.18 UGM./M↑3
C7H12O2 ISOMERS         EST 0.043 UGM /M↑3

C5H10O3 ISOMERS         EST 0.33 UGM./M↑3
C6H12O2 ISOMERS         EST 0.12 UGM./M↑3
C5H10O2 ISOMERS         EST 0.12 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.081 UGM /M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.068 UGM /M↑3

HCO(CH2)5ONO2+ISOMERS   EST 0.087 UGM /M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.062 UGM /M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.24 UGM./M↑3
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PAGE 003.
HCO(CH2)4COONO2+ISOMERS EST 0.087 UGM./M+3
HCO(CH2)4COONO          EST 0.043 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.80 UGM./M+3
C6H8O2 ISOMERS          EST 0.75 UGM./M+3
C7H10O2 ISOMERS         EST 0.037 UGM./M+3
C5H8O3 ISOMERS          EST 0.087 UGM./M+3
C5H6O4 ISOMERS          EST 0.037 UGM./M+3

C7H7NO4 ISOMERS         EST 0.010 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.11 UGM./M+3
C10H16O2 ISOMERS        EST 0.037 UGM./M+3
C10H14O3 ISOMERS        EST 0.087 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.099 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 26. UGM./M+3
AMMONIUM CHLORIDE         3 0.44 UGM./M+3
AMMONIUM NITRATE          2 1.4 UGM./M+3
SODIUM NITRATE            1 0.11 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
DDT, DDD                EST 0.021 UGM./M+3
LINDANE                 EST 0.038 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.059 UGM./M+3
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WEST COVINA 0220 TO 0720 PDT 7/24/73

 TB0195RV 2 FILTER
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0032 TO RUN 0064
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 789E +0 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 2.0 UGM./M+3
ALKANES LOW MW              CL 0.30 UGM./M+3
ALKANES MED. MW             CL 0.75 UGM./M+3
ALKANES HI MW               CL 0.49 UGM./M+3
TOTAL ALKENES                  1.9 UGM./M+3

ALKENES LOW MW              CL 0.12 UGM./M+3
ALKENES MED. MW             CL 0.92 UGM./M+3
ALKENES HI MW               CL 0.87 UGM./M+3
ALPHA PINENE                   1.5 UGM./M+3
TERPENES AS PINENE          CL 0.77 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.73 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.30 UGM./M+3
ALKYL BENZENES C9H12     CL 3.0 UGM./M+3
ALKYL BENZENES C10H14    CL 0.35 UGM./M+3
BIPHENYL                  1 0.42 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.13 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.030 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.14 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.13 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.012 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.023 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.027 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.044 UGM./M+3
CORONENE?                 E 0.012 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.076 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.35 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.13 UGM./M+3
DIHYDROXYBENZENES         1 0.11 UGM./M+3
BENZOQUINONE              L 0.073 UGM./M+3

NAPHTHOQUINONE?        EST. 0.017 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.036 UGM./M+3
PHENOL                    1 0.11 UGM./M+3
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     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.051 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.038 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.087 UGM./M↑3
PENTANDIOIC ACID       EST. 0.61 UGM./M↑3
HEXANDIOIC ACID           4 1.5 UGM./M↑3

METHYLHEXANDIOIC ACID     1 0.35 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.58 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.55 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   1.4 UGM./M↑3
CONH FRAGMENT (RELATIVE)    5.4 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.51 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.030 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.27 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.073 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.011 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.013 UGM /M↑3
CARBAZOLE                 L 0.023 UGM./M↑3
ACRIDINE & ISOMERS        L 0.0093 UGM./M↑3

NITRONAPHTHALENE        EST 0.0024 UGM./M↑3
PYRIDINE SULFATE        EST 0.073 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 2.6 UGM./M↑3
C8H5O3 (PHTHALATES)         10. UGM./M↑3
C7H12O3 ISOMERS         EST 0.21 UGM./M↑3
C6H12O3 ISOMERS         EST 0.18 UGM./M↑3
C6H10O3 ISOMERS         EST 0.56 UGM./M↑3

C7H12O2 ISOMERS         EST 0.060 UGM./M↑3
C5H10O3 ISOMERS         EST 0.27 UGM./M↑3
C6H12O2 ISOMERS         EST 0.085 UGM./M↑3
C5H10O2 ISOMERS         EST 0.083 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.13 UGM./M↑3

HCO(CH2)6ONO2+ISOMERS   EST 0.18 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.24 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.19 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.085 UGM./M↑3
HCO(CH2)3COONO2+ISOMERS EST 0.060 UGM./M↑3

HCO(CH2)3COONO          EST 0.060 UGM./M↑3
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PAGE 003.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.95 UGM./M↑3
C6H8O2 ISOMERS           EST 0.56 UGM./M↑3
C7H10O2 ISOMERS          EST 0.20 UGM./M↑3
C5H8O3 ISOMERS           EST 0.29 UGM./M↑3
C7H7NO4 ISOMERS          EST 0.0048 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H16O3 (PINONIC ACID?)EST 0.060 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 12. UGM./M↑3
AMMONIUM CHLORIDE         3 0.68 UGM./M↑3
AMMONIUM NITRATE          2 1.0 UGM./M↑3
SODIUM NITRATE            1 0.21 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C12H4CL4 FRAG. PCB?      EST 0.024 UGM./M↑3
C5H5CL (HEPTACHLOR?)     EST 0.12 UGM./M↑3
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WEST COVINA 0720 TO 0920 PDT 7/24/73.

 TB0198RV 2 FILTERS
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0066 TO RUN 0095
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 311E +0 CUBIC METERS, ALIQUOT=0. 560E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 3.1 UGM./M↑3
ALKANES LOW MW           CL 0.32 UGM./M↑3
ALKANES MED. MW          CL 1.6 UGM./M↑3
ALKANES HI MW            CL 0.75 UGM./M↑3
TOTAL ALKENES               3.1 UGM./M↑3

ALKENES LOW MW           CL 0.16 UGM./M↑3
ALKENES MED. MW          CL 1.3 UGM./M↑3
ALKENES HI MW            CL 1.6 UGM./M↑3
ALPHA PINENE                3.1 UGM./M↑3
TERPENES AS PINENE       CL 1.1 UGM./M↑3

XYLENES,MON SUB BENZENES CL 1.0 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.38 UGM./M↑3
ALKYL BENZENES C9H12     CL 3.6 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.36 UGM./M↑3
BIPHENYL                  1 0.18 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.063 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.067 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.20 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.14 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.051 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.026 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.068 UGM./M↑3

CHRYSENE, ISOMERS C18H12  L 0.015 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.11 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.79 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.19 UGM./M↑3
DIHYDROXYBENZENES         1 0.17 UGM./M↑3
BENZOQUINONE              L 0.050 UGM./M↑3

NAPHTHOQUINONE?        EST. 0.015 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.011 UGM./M↑3
PHENOL                    1 0.14 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.092 UGM./M↑3
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PAGE 002.
METHYL BENZOIC ISOMERS EST.  0.15 UGM./M+3
ETHYL BENZOIC ISOMERS  EST.  0.022 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST  0.066 UGM./M+3
PENTANDIOIC ACID       EST.  1.0 UGM./M+3
HEXANDIOIC ACID           4  2.3 UGM./M+3

METHYLHEXANDIOIC ACID     1  1.7 UGM./M+3
BENZOYL ION (ARBITRARY)      0.72 UGM./M+3
ACIDS (AS ACETIC ACID)  EST  0.95 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    1.2 UGM./M+3
CONH FRAGMENT (RELATIVE)     6.5 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.12 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.24 UGM./M+3

PYRIDINE + PYRIDYL CPDS   L 0.013 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.088 UGM./M+3
CARBAZOLE                 L 0.0096 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0057 UGM./M+3
NITRONAPHTHALENE        EST 0.010 UGM./M+3

PYRIDINE SULFATE        EST 0.041 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          5.1 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 1.2 UGM./M+3
C7H12O3 ISOMERS         EST 0.26 UGM./M+3
C6H12O3 ISOMERS         EST 0.15 UGM./M+3
C7H14O2 ISOMERS         EST 0.061 UGM./M+3

C6H10O3 ISOMERS         EST 1.0 UGM./M+3
C7H12O2 ISOMERS         EST 0.32 UGM./M+3
C5H10O3 ISOMERS         EST 0.47 UGM./M+3
C4H6O4 (SUCCINIC ACID?) EST 3.4 UGM./M+3
C6H12O2 ISOMERS         EST 0.15 UGM./M+3

C5H10O2 ISOMERS         EST 0.23 UGM./M+3
HOOC(CH2)5ONO2          EST 0.061 UGM./M+3
HOOC(CH2)4ONO2          EST 0.077 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.092 UGM./M+3
HCO(CH2)5ONO2+ISOMERS   EST 0.077 UGM./M+3

HCO(CH2)4ONO2+ISOMERS   EST 0.23 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.66 UGM./M+3
HCO(Ch2)3COONO2+ISOMERS EST 0.077 UGM./M+3
HCO(CH2)4COONO          EST 0.077 UGM./M+3
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PAGE 003.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.4 UGM./M↑3
C6H8O2 ISOMERS          EST 0.62 UGM./M↑3
C7H10O2 ISOMERS         EST 0.21 UGM./M↑3
C5H8O3 ISOMERS          EST 0.58 UGM./M↑3
C5H6O4 ISOMERS          EST 0.29 UGM./M↑3

NITROCRESOLS?             L 0.0061 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.23 UGM./M↑3
C10H16O2 ISOMERS        EST 0.27 UGM./M↑3
C10H14O3 ISOMERS        EST 0.26 UGM./M↑3
C10H16O3 (PINONIC ACID?)EST 0.092 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 12. UGM./M↑3
AMMONIUM CHLORIDE         3 1.3 UGM./M↑3
AMMONIUM NITRATE          2 2.7 UGM./M↑3
SODIUM NITRATE            1 0.57 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
ISODRIN                 EST 0.14 UGM./M↑3
LINDANE                 EST 0.048 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.17 UGM./M↑3
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WEST COVINA 0920 TO 1120 PDT 7/24/73.

 TB0199RV 2 FILTERS
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0097 TO RUN 0128
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 303E +0 CUBIC METERS, ALIQUOT=0. 560E +0
INST. SENSITIVITY=0. 412E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 2.1 UGM./M↑3
ALKANES LOW MW           CL 0.52 UGM./M↑3
ALKANES MED. MW          CL 0.92 UGM./M↑3
ALKANES HI MW            CL 0.30 UGM./M↑3
TOTAL ALKENES               2.8 UGM./M↑3

ALKENES LOW MW           CL 0.32 UGM./M↑3
ALKENES MED. MW          CL 1.1 UGM./M↑3
ALKENES HI MW            CL 0.90 UGM./M↑3
ALPHA PINENE                2.2 UGM./M↑3
TERPENES AS PINENE       CL 1.3 UGM./M↑3

XYLENES,MON SUB BENZENES CL 1.0 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.22 UGM./M↑3
ALKYL BENZENES C9H12     CL 3.7 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.39 UGM./M↑3
BIPHENYL                  1 1.1 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.046 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.20 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.18 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.078 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.016 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.022 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.010 UGM./M↑3

CHRYSENE, ISOMERS C18H12  L 0.016 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.040 UGM./M↑3
DIBENZANTHRACENES C22H14  E 0.049 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.21 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.45 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.22 UGM./M↑3
DIHYDROXYBENZENES         1 0.27 UGM./M↑3
BENZOQUINONE              L 0.086 UGM./M↑3

NAPHTHOQUINONE?        EST. 0.037 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.065 UGM./M↑3
PHENOL                    1 0.23 UGM./M↑3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.18 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.22 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.15 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.024 UGM./M+3
PENTANDIOIC ACID       EST. 3.2 UGM./M+3

HEXANDIOIC ACID             4 5.7 UGM./M+3
METHYLHEXANDIOIC ACID       1 3.4 UGM./M+3
BENZOYL ION (ARBITRARY)       1.3 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 1.1 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)     1.5 UGM./M+3
CONH FRAGMENT (RELATIVE)      9.9 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.46 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.33 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.11 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.10 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.028 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.11 UGM./M+3
CARBAZOLE                 L 0.040 UGM./M+3
ACRIDINE & ISOMERS        L 0.015 UGM./M+3

QUINOLINE (-INTERFER?)    L 0.0096 UGM./M+3
PIPERAZINE?             EST 0.0072 UGM./M+3
PYRIDINE SULFATE        EST 0.15 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         4.5 UGM./M+3
C7H14O3 ISOMERS         EST 0.34 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 10. UGM./M+3
C7H12O3 ISOMERS         EST 0.10 UGM./M+3
C6H12O3 ISOMERS         EST 0.44 UGM./M+3

C5H8O4 (GLUTARIC ACID?) EST 2.3 UGM./M+3
C7H14O2 ISOMERS         EST 0.072 UGM./M+3
C6H10O3 ISOMERS         EST 0.70 UGM./M+3
C7H12O2 ISOMERS         EST 0.21 UGM./M+3
C5H10O3 ISOMERS         EST 0.45 UGM./M+3

C4H6O4 (SUCCINIC ACID?) EST 6.4 UGM./M+3
C6H12O2 ISOMERS         EST 0.057 UGM./M+3
C5H10O2 ISOMERS         EST 0.23 UGM./M+3
HOOC(CH2)5ONO2          EST 0.15 UGM./M+3
HOOC(CH2)4ONO2          EST 0.17 UGM./M+3
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PAGE 003.
HCO(CH2)5ONO2+ISOMERS   EST 0.057 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.30 UGM./M↑3
HOOC(CH2)3COONO2        EST 0.11 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.15 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.072 UGM./M↑3

HCO(CH2)3COONO2+ISOMERS EST 0.086 UGM./M↑3
HCO(CH2)4COONO          EST 0.21 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 2.2 UGM./M↑3
C6H8O2 ISOMERS          EST 2.3 UGM./M↑3
C7H10O2 ISOMERS         EST 0.23 UGM./M↑3
C5H8O3 ISOMERS          EST 0.47 UGM./M↑3
C5H6O4 ISOMERS          EST 0.13 UGM./M↑3

C6H8O4 ISOMERS          EST 0.072 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.46 UGM./M↑3
C10H16O2 ISOMERS        EST 0.28 UGM./M↑3
C10H14O3 ISOMERS        EST 0.31 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.057 UGM./M↑3
C9H14O4 (PINIC ACID?)   EST 0.10 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 26. UGM./M↑3
AMMONIUM CHLORIDE         3 1.6 UGM./M↑3
AMMONIUM NITRATE          2 4.6 UGM./M↑3
SODIUM NITRATE            1 0.60 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
ISODRIN                 EST 0.045 UGM./M↑3
LINDANE                 EST 0.24 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.24 UGM./M↑3
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WEST COVINA 1120 TO 1320 PDT 7/24/73

 TB0200RV 2 FILTERS
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0130 TO RUN 0163
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 303E +0 CUBIC METERS, ALIQUOT=0. 560E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 2.2 UGM./M+3
ALKANES LOW MW              CL 0.60 UGM./M+3
ALKANES MED. MW            •CL 0.72 UGM./M+3
ALKANES HI MW               CL 0.41 UGM./M+3
TOTAL ALKENES                  2.0 UGM./M+3

ALKENES LOW MW              CL 0.23 UGM./M+3
ALKENES MED. MW             CL 0.94 UGM./M+3
ALKENES HI MW               CL 0.86 UGM./M+3
ALPHA PINENE                   2.5 UGM./M+3
TERPENES AS PINENE          CL 1.2 UGM./M+3

XYLENES,MON SUB BENZENES CL 1.1 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.56 UGM./M+3
ALKYL BENZENES C9H12     CL 3.7 UGM./M+3
ALKYL BENZENES C10H14    CL 0.25 UGM./M+3
BIPHENYL                  1 0.41 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.041 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.14 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.063 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0044 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.053 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.054 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.026 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.015 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.013 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.038 UGM./M+3
CORONENE?                 E 0.025 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.23 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.92 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.44 UGM./M+3
DIHYDROXYBENZENES         1 0.46 UGM./M+3
BENZOQUINONE              L 0.11 UGM./M+3

NAPHTHOQUINONE?        EST. 0.028 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.12 UGM./M+3
PHENOL                    1 0.23 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.26 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.24 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.056 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.18 UGM./M↑3
PENTANDIOIC ACID       EST. 2.8 UGM./M↑3

HEXANDIOIC ACID          4 5.6 UGM./M↑3
METHYLHEXANDIOIC ACID    1 2.8 UGM./M↑3
BENZOYL ION (ARBITRARY)    1.0 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 1.4 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   1.7 UGM./M↑3
CONH FRAGMENT (RELATIVE)    12. UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.42 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.27 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.32 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.39 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.057 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.033 UGM./M↑3
CARBAZOLE                 L 0.026 UGM./M↑3
ACRIDINE & ISOMERS        L 0.013 UGM./M↑3

QUINOLINE (-INTERFER?)    L 0.017 UGM./M↑3
NITRONAPHTHALENE        EST 0.0071 UGM./M↑3
PYRIDINE SULFATE        EST 0.035 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 1.9 UGM./M↑3
C8H5O3 (PHTHALATES)         7.6 UGM./M↑3
C7H14O3 ISOMERS         EST 0.14 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 17. UGM./M↑3
C7H12O3 ISOMERS         EST 0.41 UGM./M↑3

C6H12O3 ISOMERS         EST 0.38 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 1.5 UGM./M↑3
C7H14O2 ISOMERS         EST 0.095 UGM./M↑3
C6H10O3 ISOMERS         EST 0.25 UGM./M↑3
C7H12O2 ISOMERS         EST 0.15 UGM./M↑3

C5H10O3 ISOMERS         EST 0.63 UGM./M↑3
C4H6O4 (SUCCINIC ACID?) EST 3.4 UGM./M↑3
C6H12O2 ISOMERS         EST 0.12 UGM./M↑3
C5H10O2 ISOMERS         EST 0.53 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.33 UGM./M↑3
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PAGE 003.
HCO(CH2)6ONO2+ISOMERS    EST 0.095 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS    EST 0.11 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS    EST 0.62 UGM./M↑3
HOOC(CH2)4COONO2         EST 0.11 UGM./M↑3
HOOC(CH2)3COONO2         EST 0.28 UGM./M↑3

HCO(CH2)5COONO2+ISOMERS EST 0.53 UGM./M↑3
HCO(CH2)3COONO2+ISOMERS EST 0.063 UGM./M↑3
HCO(CH2)3COONO           EST 0.079 UGM./M↑3

     CPD. FILE 0057, DATE 082575, TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 3.9 UGM./M↑3
C6H8O2 ISOMERS           EST 2.7 UGM./M↑3
C7H10O2 ISOMERS          EST 1.9 UGM./M↑3
C5H6O4 ISOMERS           EST 0.31 UGM./M↑3
C6H8O4 ISOMERS           EST 0.14 UGM./M↑3

C7H7NO4 ISOMERS          EST 0.0079 UGM./M↑3
NITROCRESOLS?              L 0.015 UGM./M↑3

     CPD. FILE 0058, DATE 082575, TENTATIVE TERPENE PRODUCTS
C10H16O2 ISOMERS         EST 0.079 UGM./M↑3
C10H14O3 ISOMERS         EST 0.36 UGM./M↑3
C10H16O3 (PINONIC ACID?)EST 0.095 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.41 UGM./M↑3
C9H14O4 (PINIC ACID?)    EST 0.079 UGM./M↑3

     CPD. FILE 0059, DATE 082575, INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 34. UGM./M↑3
AMMONIUM CHLORIDE         3 0.98 UGM./M↑3
AMMONIUM NITRATE          2 3.3 UGM./M↑3
SODIUM NITRATE            1 0.48 UGM./M↑3

     CPD. FILE 0060, DATE 082575, CHLORINATED COMPOUNDS
LINDANE                  EST 0.069 UGM./M↑3
C5H5CL (HEPTACHLOR?)     EST 0.34 UGM./M↑3
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WEST COVINA 1320 TO 1520 PDT 7/24/73

 TB0201RV 1 FILTER
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0364 TO RUN 0399
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 299E +0 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 2.3 UGM./M↑3
ALKANES LOW MW           CL 0.31 UGM./M↑3
ALKANES MED. MW          CL 0.96 UGM./M↑3
ALKANES HI MW            CL 0.68 UGM./M↑3
TOTAL ALKENES               3.0 UGM./M↑3

ALKENES LOW MW           CL 0.31 UGM./M↑3
ALKENES MED. MW          CL 1.2 UGM./M↑3
ALKENES HI MW            CL 1.0 UGM./M↑3
ALPHA PINENE                3.5 UGM./M↑3
TERPENES AS PINENE       CL 1.8 UGM./M↑3

XYLENES,MON SUB BENZENES CL 1.7 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.42 UGM./M↑3
ALKYL BENZENES C9H12     CL 3.8 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.68 UGM./M↑3
BIPHENYL                  1 0.98 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.044 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.035 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.32 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.23 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.042 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.071 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.12 UGM./M↑3

CHRYSENE, ISOMERS C18H12  L 0.016 UGM./M↑3
DIBENZANTHRACENES C22H14  E 0.13 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.12 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.98 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.74 UGM./M↑3
DIHYDROXYBENZENES         1 0.65 UGM./M↑3
BENZOQUINONE              L 0.046 UGM./M↑3

NAPHTHOQUINONE?        EST. 0.038 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.047 UGM./M↑3
PHENOL                    1 0.33 UGM./M↑3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.060 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.36 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.17 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.14 UGM./M↑3
PENTANDIOIC ACID       EST. 2.9 UGM./M↑3

HEXANDIOIC ACID           4 8.3 UGM./M↑3
METHYLHEXANDIOIC ACID     1 5.4 UGM./M↑3
BENZOYL ION (ARBITRARY)     1.4 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 2.4 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   4.2 UGM./M↑3
CONH FRAGMENT (RELATIVE)    23. UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  3.0 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.32 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.19 UGM./M↑3

PYRIDINE + PYRIDYL CPDS   L 0.065 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.067 UGM./M↑3
CARBAZOLE                 L 0.033 UGM./M↑3
ACRIDINE & ISOMERS        L 0.013 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.033 UGM./M↑3

NITRONAPHTHALENE        EST 0.0096 UGM./M↑3
PYRIDINE SULFATE        EST 0.13 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 3.8 UGM./M↑3
C8H5O3 (PHTHALATES)         7.8 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 8.3 UGM./M↑3
C7H12O3 ISOMERS         EST 0.38 UGM./M↑3
C6H12O3 ISOMERS         EST 0.62 UGM./M↑3

C5H8O4 (GLUTARIC ACID?) EST 2.5 UGM./M↑3
C6H10O3 ISOMERS         EST 0.45 UGM./M↑3
C7H12O2 ISOMERS         EST 1.6 UGM./M↑3
C6H12O2 ISOMERS         EST 0.25 UGM./M↑3
C5H10O2 ISOMERS         EST 0.35 UGM./M↑3

HOOC(CH2)5ONO2          EST 0.35 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.19 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.12 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.12 UGM./M↑3
HCO(CH2)3COONO          EST 0.25 UGM./M↑3
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PAGE 003.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 5.5 UGM./M+3
C6H8O2 ISOMERS          EST 3.1 UGM./M+3
C7H10O2 ISOMERS         EST 0.96 UGM./M+3
C5H8O3 ISOMERS          EST 2.0 UGM./M+3
C6H8O4 ISOMERS          EST 0.16 UGM./M+3

C7H7NO4 ISOMERS         EST 0.037 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 1.0 UGM./M+3
C10H16O2 ISOMERS        EST 0.51 UGM./M+3
C10H14O3 ISOMERS        EST 0.27 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.16 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.16 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 43. UGM./M+3
AMMONIUM CHLORIDE         3 1.0 UGM./M+3
AMMONIUM NITRATE          2 1.6 UGM./M+3
SODIUM NITRATE            1 0.60 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.26 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.33 UGM./M+3
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WEST COVINA 1520 TO 1720 PDT 7/24/73

 TB0202RV 1 FILTER
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0328 TO RUN 0363
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 301E +0 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 4.5 UGM./M+3
ALKANES LOW MW           CL 0.43 UGM./M+3
ALKANES MED. MW          CL 2.4 UGM./M+3
ALKANES HI MW            CL 0.93 UGM./M+3
TOTAL ALKENES               5.5 UGM./M+3

ALKENES LOW MW           CL 0.51 UGM./M+3
ALKENES MED. MW          CL 2.9 UGM./M+3
ALKENES HI MW            CL 2.1 UGM./M+3
ALPHA PINENE                4.6 UGM./M+3
TERPENES AS PINENE       CL 2.0 UGM./M+3

XYLENES,MON SUB BENZENES CL 2.0 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.82 UGM./M+3
ALKYL BENZENES C9H12     CL 6.1 UGM./M+3
ALKYL BENZENES C10H14    CL 0.58 UGM./M+3
BIPHENYL                  1 0.77 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.019 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.23 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.32 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.18 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.067 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.059 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.065 UGM./M+3

BENZOPERYLENE+INTERFER.   E 0.069 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.057 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.35 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 1.2 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.19 UGM./M+3
DIHYDROXYBENZENES         1 0.58 UGM./M+3
BENZOQUINONE              L 0.16 UGM./M+3

NAPHTHOQUINONE?        EST. 0.076 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.27 UGM./M+3
PHENOL                    1 0.35 UGM./M+3
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PAGE 002.

          CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.32 UGM./M+3
METHYL BENZOIC ISOMERS EST.  0.21 UGM./M+3
ETHYL BENZOIC ISOMERS  EST.  0.054 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.045 UGM./M+3
PENTANDIOIC ACID       EST.  4.7 UGM./M+3

HEXANDIOIC ACID              4 8.9 UGM./M+3
METHYLHEXANDIOIC ACID        1 4.3 UGM./M+3
BENZOYL ION (ARBITRARY)        1.4 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 3.0 UGM./M+3

          CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    3.1 UGM./M+3
CONH FRAGMENT (RELATIVE)     13.  UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)   1.2 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)   0.064 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)   0.12 UGM./M+3

PYRIDINE + PYRIDYL CPDS    L 0.021 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.060 UGM./M+3
CARBAZOLE                  L 0.021 UGM./M+3
ACRIDINE & ISOMERS         L 0.013 UGM./M+3
QUINOLINE (-INTERFER?)     L 0.084 UGM./M+3

PYRIDINE SULFATE        EST 0.29 UGM./M+3

          CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          8.8 UGM./M+3
C7H14O3 ISOMERS         EST 0.16 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 16.  UGM./M+3
C7H12O3 ISOMERS         EST 0.95 UGM./M+3
C6H12O3 ISOMERS         EST 1.9 UGM./M+3

C5H8O4 (GLUTARIC ACID?) EST 3.8 UGM./M+3
C7H14O2 ISOMERS         EST 0.22 UGM./M+3
C6H10O3 ISOMERS         EST 1.2 UGM./M+3
C7H12O2 ISOMERS         EST 1.6 UGM./M+3
C5H10O3 ISOMERS         EST 0.68 UGM./M+3

C6H12O2 ISOMERS         EST 0.44 UGM./M+3
C5H10O2 ISOMERS         EST 0.64 UGM./M+3
HOOC(CH2)5ONO2          EST 0.16 UGM./M+3
HOOC(CH2)4ONO2          EST 0.16 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.38 UGM./M+3

HCO(CH2)5ONO2+ISOMERS   EST 1.3 UGM./M+3
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PAGE 003.
HCO(CH2)4ONO2+ISOMERS   EST 0.70 UGM./M+3
HOOC(CH2)3COONO2        EST 0.25 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.35 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.41 UGM./M+3
HCO(CH2)3COONO          EST 0.22 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 4.8 UGM./M+3
C6H8O2 ISOMERS          EST 5.2 UGM./M+3
C7H10O2 ISOMERS         EST 2.0 UGM./M+3
C5H8O3 ISOMERS          EST 1.2 UGM./M+3
C5H6O4 ISOMERS          EST 0.19 UGM./M+3

C6H8O4 ISOMERS          EST 0.35 UGM./M+3
C7H7NO4 ISOMERS         EST 0.038 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.65 UGM./M+3
C10H14O3 ISOMERS        EST 0.44 UGM./M+3
C9H14O4 (PINIC ACID?)   EST 0.12 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 69. UGM./M+3
AMMONIUM CHLORIDE         3 1.1 UGM./M+3
AMMONIUM NITRATE          2 2.0 UGM./M+3
SODIUM NITRATE            1 0.60 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.14 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.39 UGM./M+3
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WEST COVINA 1720 TO 1920 PDT 7/24/73.

 TB0203RV 1 FILTER
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0237 TO RUN 0272
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 313E +0 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 3.1 UGM./M+3
ALKANES LOW MW             CL 0.29 UGM./M+3
ALKANES MED. MW            CL 1.5 UGM./M+3
ALKANES HI MW              CL 0.79 UGM./M+3
TOTAL ALKENES                 3.8 UGM./M+3

ALKENES LOW MW             CL 0.29 UGM./M+3
ALKENES MED. MW            CL 1.5 UGM./M+3
ALKENES HI MW              CL 1.8 UGM./M+3
ALPHA PINENE                  3.4 UGM./M+3
TERPENES AS PINENE         CL 1.8 UGM./M+3

XYLENES,MON SUB BENZENES CL 1.6 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.67 UGM./M+3
ALKYL BENZENES C9H12     CL 5.4 UGM./M+3
ALKYL BENZENES C10H14    CL 0.35 UGM./M+3
BIPHENYL                  1 2.8 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.12 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.14 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.36 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.089 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.052 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.029 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.030 UGM./M+3

BENZOPERYLENE+INTERFER.   E 0.13 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.87 UGM./M+3
CORONENE?                 E 0.043 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.23 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.60 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.15 UGM./M+3
DIHYDROXYBENZENES         1 0.53 UGM./M+3
BENZOQUINONE              L 0.072 UGM./M+3

NAPHTHOQUINONE?        EST. 0.10 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.059 UGM./M+3
PHENOL                    1 0.20 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.19 UGM./M↑3
METHYL BENZOIC ISOMERS EST.  0.26 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST.  0.092 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.061 UGM./M↑3
PENTANDIOIC ACID       EST.  4.5 UGM./M↑3

HEXANDIOIC ACID              4 7.6 UGM./M↑3
METHYLHEXANDIOIC ACID        1 3.3 UGM./M↑3
BENZOYL ION (ARBITRARY)        1.3 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 2.0 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    2.6 UGM./M↑3
CONH FRAGMENT (RELATIVE)     8.4 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.70 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.16 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.15 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.36 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.016 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.033 UGM./M↑3
CARBAZOLE                 L 0.041 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.022 UGM./M↑3

PYRIDINE SULFATE        EST 0.40 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)            7.4 UGM./M↑3
C7H14O3 ISOMERS         EST 0.36 UGM./M↑3
C7H12O3 ISOMERS         EST 0.73 UGM./M↑3
C6H12O3 ISOMERS         EST 0.30 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 6.1 UGM./M↑3

C6H10O3 ISOMERS         EST 0.67 UGM./M↑3
C7H12O2 ISOMERS         EST 0.15 UGM./M↑3
C5H10O3 ISOMERS         EST 0.24 UGM./M↑3
C5H10O2 ISOMERS         EST 0.18 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.79 UGM./M↑3

HOOC(CH2)4ONO2          EST 0.30 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.39 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.46 UGM./M↑3
HOOC(CH2)3COONO2        EST 0.18 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.83 UGM./M↑3

HCO(CH2)3COONO2+ISOMERS EST 0.12 UGM./M↑3
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PAGE 003.
HCO(CH2)4COONO          EST 0.33 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 4.5 UGM./M↑3
C6H8O2 ISOMERS          EST 2.7 UGM./M↑3
C7H10O2 ISOMERS         EST 0.46 UGM./M↑3
C5H8O3 ISOMERS          EST 0.46 UGM./M↑3
C6H8O4 ISOMERS          EST 0.15 UGM./M↑3

C7H7NO4 ISOMERS         EST 0.015 UGM./M↑3
NITROCRESOLS?             L 0.018 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.33 UGM./M↑3
C10H16O2 ISOMERS        EST 0.12 UGM./M↑3
C10H14O3 ISOMERS        EST 0.39 UGM./M↑3
C10H16O3 (PINONIC ACID?)EST 0.43 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 37.  UGM./M↑3
AMMONIUM CHLORIDE         3 0.90 UGM./M↑3
AMMONIUM NITRATE          2 0.98 UGM./M↑3
SODIUM NITRATE            1 0.68 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.096 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.61 UGM./M↑3
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WEST COVINA 1920 TO 2220 PDT 7/24/73

 TB0204RV 1 FILTER
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0292 TO RUN 0327
DATE 051474, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 475E +0 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 374E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 1.6 UGM./M↑3
ALKANES LOW MW             CL 0.15 UGM./M↑3
ALKANES MED. MW            CL 1.0 UGM./M↑3
ALKANES HI MW              CL 0.36 UGM./M↑3
TOTAL ALKENES                 2.2 UGM./M↑3

ALKENES LOW MW             CL 0.15 UGM./M↑3
ALKENES MED. MW            CL 1.1 UGM./M↑3
ALKENES HI MW              CL 0.90 UGM./M↑3
ALPHA PINENE                  2.0 UGM./M↑3
TERPENES AS PINENE         CL 0.92 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.92 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.16 UGM./M↑3
ALKYL BENZENES C9H12     CL 2.4 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.076 UGM./M↑3
BIPHENYL                    1 1.5 UGM./M↑3

DIPHENYL ETHANE & ISOMERS L 0.027 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.19 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.035 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.013 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0069 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.017 UGM./M↑3

BENZOPERYLENE+INTERFER.   E 0.052 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.087 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.30 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.15 UGM./M↑3
DIHYDROXYBENZENES           1 0.15 UGM./M↑3
BENZOQUINONE                L 0.022 UGM./M↑3

NAPHTHOQUINONE?        EST. 0.024 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.078 UGM./M↑3
PHENOL                      1 0.15 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.10 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.040 UGM./M↑3
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PAGE 002.
ETHYL BENZOIC ISOMERS  EST. 0.026 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.034 UGM./M↑3
PENTANDIOIC ACID       EST. 3.4 UGM./M↑3
HEXANDIOIC ACID           4 3.1 UGM./M↑3
METHYLHEXANDIOIC ACID     1 2.1 UGM./M↑3

BENZOYL ION (ARBITRARY)     0.98 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 1.3 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   2.1 UGM./M↑3
CONH FRAGMENT (RELATIVE)    7.4 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.16 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.14 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.12 UGM./M↑3

PYRIDINE + PYRIDYL CPDS   L 0.0081 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.026 UGM /M↑3
QUINOLINE (-INTERFER?)    L 0.054 UGM /M↑3
NITRONAPHTHALENE        EST 0.0050 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         5.3 UGM./M↑3
C7H14O3 ISOMERS         EST 0.10 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 1.6 UGM./M↑3
C7H12O3 ISOMERS         EST 0.36 UGM./M↑3
C6H12O3 ISOMERS         EST 0.10 UGM./M↑3

C5H8O4 (GLUTARIC ACID?) EST 5.2 UGM./M↑3
C6H10O3 ISOMERS         EST 0.34 UGM./M↑3
C7H12O2 ISOMERS         EST 0.97 UGM./M↑3
C5H10O3 ISOMERS         EST 0.40 UGM./M↑3
C5H10O2 ISOMERS         EST 0.081 UGM /M↑3

HOOC(CH2)4ONO2          EST 0.14 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.081 UGM /M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.20 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.22 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.3 UGM./M↑3
C6H8O2 ISOMERS          EST 1.2 UGM./M↑3
C7H10O2 ISOMERS         EST 0.83 UGM./M↑3
C5H8O3 ISOMERS          EST 0.62 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.32 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.081 UGM /M↑3
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     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 29. UGM./M↑3
AMMONIUM CHLORIDE         3 0.54 UGM./M↑3
AMMONIUM NITRATE          2 1.8 UGM./M↑3
SODIUM NITRATE            1 0.27 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUHDS
C5H5CL (HEPTACHLOR?)    EST 0.37 UGM./M↑3
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POMONA 2110 8/16/73 TO 0120 8/17/73 PDT

 LAP 289 2UGM BBA MPY  400
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0061 TO RUN 0095
DATE 031075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 193E +0 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.76 UGM./M+3
ALKANES LOW MW           CL 0.38 UGM./M+3
ALKANES MED. MW          CL 0.11 UGM./M+3
TOTAL ALKENES               0.45 UGM./M+3
ALKENES LOW MW           CL 0.085 UGM./M+3

ALKENES MED. MW          CL 0.14 UGM./M+3
ALKENES HI MW            CL 0.14 UGM./M+3
ALPHA PINENE                0.26 UGM./M+3
TERPENES AS PINENE       CL 0.19 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.20 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.092 UGM /M+3
ALKYL BENZENES C9H12     CL 0.98 UGM./M+3
ALKYL BENZENES C10H14    CL 0.081 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.020 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.0059 UGM./M+3
ANTHRACENE-PHENANTHRENE    2 0.0018 UGM./M+3
CHRYSENE, ISOMERS C18H12   L 0.0087 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.048 UGM /M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.10 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.037 UGM./M+3
DIHYDROXYBENZENES          1 0.021 UGM /M+3
BENZOQUINONE               L 0.0095 UGM./M+3

BENZALDEHYDE (+INTERF. )   L 0.016 UGM /M+3
PHENOL                     1 0.055 UGM /M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.75 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.029 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.0074 UGM./M+3
PENTANDIOIC ACID       EST. 0.13 UGM./M+3
HEXANDIOIC ACID            4 1.0 UGM./M+3

METHYLHEXANDIOIC ACID      1 0.36 UGM./M+3
BENZOYL ION (ARBITRARY)      1.7 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.16 UGM./M+3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)  0.052 UGM./M↑3
CONH FRAGMENT (RELATIVE)   6.7 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE) 0.085 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE) 0.091 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE) 0.091 UGM./M↑3

PYRIDINE + PYRIDYL CPDS  L 0.0034 UGM./M↑3
PIPERIDINES (+ISOMERS) EST 0.0098 UGM./M↑3
QUINOLINE (-INTERFER?)   L 0.033 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 1.0 UGM./M↑3
C8H503 (PHTHALATES)         1.4 UGM./M↑3
C7H1203 ISOMERS        EST 0.19 UGM./M↑3
C6H1203 ISOMERS        EST 0.058 UGM./M↑3
C7H1202 ISOMERS        EST 0.078 UGM./M↑3

C5H1002 ISOMERS        EST 0.039 UGM./M↑3
HOOC(CH2)50NO2         EST 0.045 UGM./M↑3
HCO(CH2)40NO2+ISOMERS  EST 0.052 UGM./M↑3
HOOC(CH2)3COONO2       EST 0.019 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS         EST 0.18 UGM./M↑3
C6H802 ISOMERS         EST 0.51 UGM./M↑3
C7H1002 ISOMERS        EST 0.37 UGM./M↑3
C5H803 ISOMERS         EST 0.17 UGM./M↑3
C5H604 ISOMERS         EST 0.078 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H1603 (PINONIC ACID?)EST 0.058 UGM./M↑3
C9H1404 (PINIC ACID?)  EST 0.045 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.6 UGM./M↑3
AMMONIUM CHLORIDE         3 0.087 UGM./M↑3
AMMONIUM NITRATE          2 0.28 UGM./M↑3
SODIUM NITRATE            1 0.12 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                EST 0.085 UGM./M↑3
C5H5CL (HEPTACHLOR?)   EST 0.20 UGM./M↑3
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POMONA 0120 8/17/73 TO 0620 8/17/73 PDT

 LAP 290   -2 UG BBA 0220-0720
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0096 TO RUN 0130
DATE 031075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 228E +0 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.53 UGM./M+3
ALKANES LOW MW           CL 0.23 UGM./M+3
ALKANES MED. MW          CL 0.16 UGM./M+3
ALKANES HI MW            CL 0.023 UGM./M+3
TOTAL ALKENES               0.45 UGM./M+3

ALKENES LOW MW           CL 0.068 UGM./M+3
ALKENES MED. MW          CL 0.24 UGM./M+3
ALKENES HI MW            CL 0.12 UGM./M+3
ALPHA PINENE                0.32 UGM./M+3
TERPENES AS PINENE       CL 0.18 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.17 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.037 UGM /M+3
ALKYL BENZENES C9H12     CL 0.55 UGM./M+3
ALKYL BENZENES C10H14    CL 0.019 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.018 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0060 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0026 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.010 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.038 UGM./M+3
DIHYDROXYBENZENES         1 0.019 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.012 UGM./M+3
PHENOL                    1 0.035 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.66 UGM./M+3
PENTANDIOIC ACID       EST. 0.33 UGM./M+3
HEXANDIOIC ACID           4 0.88 UGM./M+3
BENZOYL ION (ARBITRARY)     1.5 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.14 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    2.1 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.14 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0049 UGM./M+3
PYRIDINE SULFATE        EST 0.058 UGM./M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          2.2 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.16 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 4.9 UGM./M↑3
AMMONIUM CHLORIDE         3 0.099 UGM /M↑3
AMMONIUM NITRATE          2 0.28 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)     EST 0.022 UGM./M↑3
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POMONA 0720 8/17/73 TO 0910 8/17/73 PDT

 LAP 291    - 2UG BBA 0720-0910
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0071 TO RUN 0105
DATE 031175, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 840E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.4 UGM./M+3
ALKANES LOW MW            CL 0.52 UGM./M+3
ALKANES MED. MW           CL 0.60 UGM./M+3
ALKANES HI MW             CL 0.075 UGM./M+3
TOTAL ALKENES                1.1 UGM./M+3

ALKENES LOW MW            CL 0.097 UGM./M+3
ALKENES MED. MW           CL 0.49 UGM./M+3
ALKENES HI MW             CL 0.37 UGM./M+3
ALPHA PINENE                 0.84 UGM./M+3
TERPENES AS PINENE        CL 0.28 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.43 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.016 UGM./M+3
ALKYL BENZENES C9H12      CL 0.89 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
ALKYL NAPHTHALENES C12H12 L 0.024 UGM /M+3
DIBENZANTHRACENES C22H14  E 0.033 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.054 UGM./M+3
PHENOL                    1 0.027 UGM /M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 1.1 UGM./M+3
PENTANDIOIC ACID       EST. 1.1 UGM./M+3
BENZOYL ION (ARBITRARY)     3.4 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.44 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    3.4 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.082 UGM /M+3
PYRIDINE + PYRIDYL CPDS   L 0.014 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          3.7 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H8O2 ISOMERS          EST 0.18 UGM./M+3
C7H7NO4 ISOMERS         EST 0.016 UGM /M+3
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     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H14O3 ISOMERS        EST 0.23 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.8 UGM./M↑3
AMMONIUM CHLORIDE         3 0.12 UGM./M↑3
AMMONIUM NITRATE          2 0.42 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.21 UGM./M↑3
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POMONA 0910 8/17/73 TO 1110 8/17/73 PDT

 LAP 29[illegible]   8/17/74   0910-1110
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0110 TO RUN 0144
DATE 031175, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 870E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 1.0 UGM./M+3
ALKANES LOW MW           CL 0.15 UGM./M+3
ALKANES MED. MW          CL 0.55 UGM./M+3
TOTAL ALKENES               1.2 UGM./M+3
ALKENES LOW MW           CL 0.067 UGM./M+3

ALKENES MED. MW          CL 0.62 UGM./M+3
ALKENES HI MW            CL 0.25 UGM./M+3
ALPHA PINENE                0.88 UGM./M+3
TERPENES AS PINENE       CL 0.37 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.39 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.039 UGM./M+3
ALKYL BENZENES C9H12     CL 1.2 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.023 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.013 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.052 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.29 UGM./M+3
PHENOL                     1 0.10 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 1.1 UGM./M+3
PENTANDIOIC ACID       EST. 0.64 UGM./M+3
HEXANDIOIC ACID            4 0.57 UGM./M+3
BENZOYL ION (ARBITRARY)     2.8 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.063 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.83 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.079 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.020 UGM./M+3
QUINOLINE (-INTERFER?)     L 0.010 UGM./M+3
PYRIDINE SULFATE        EST 0.096 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         3.5 UGM./M+3
C7H12O2 ISOMERS         EST 0.33 UGM./M+3
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     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H8O2 ISOMERS          EST 0.30 UGM./M↑3
C5H8O3 ISOMERS          EST 0.17 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.5 UGM./M↑3
AMMONIUM CHLORIDE         3 0.085 UGM./M↑3
AMMONIUM NITRATE          2 1.5 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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POMONA 1110 8/17/73 TO 1310 8/17/73 PDT

 LAP 293   -2 UG BBA 1110-1310
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0145 TO RUN 0180
DATE 031175, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 870E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 1.1 UGM./M+3
ALKANES LOW MW           CL 0.38 UGM./M+3
ALKANES MED. MW          CL 0.43 UGM./M+3
ALKANES HI MW            CL 0.035 UGM./M+3
TOTAL ALKENES               1.2 UGM./M+3

ALKENES LOW MW           CL 0.19 UGM./M+3
ALKENES MED. MW          CL 0.49 UGM./M+3
ALKENES HI MW            CL 0.35 UGM./M+3
ALPHA PINENE                0.85 UGM./M+3
TERPENES AS PINENE       CL 0.54 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.51 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.070 UGM /M+3
ALKYL BENZENES C9H12     CL 1.3 UGM./M+3
ALKYL BENZENES C10H14    CL 0.051 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.085 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.018 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.40 UGM./M+3
DIHYDROXYBENZENES         1 0.055 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.022 UGM./M+3
PHENOL                    1 0.031 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 1.2 UGM./M+3
METHYLHEXANDIOIC ACID     1 1.7 UGM./M+3
BENZOYL ION (ARBITRARY)     2.8 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.60 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    3.5 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.14 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.015 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         6.7 UGM./M+3
C6H10O3 ISOMERS         EST 0.55 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.34 UGM./M+3
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PAGE 002.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.46 UGM./M↑3
C6H8O2 ISOMERS          EST 1.3 UGM./M↑3
C7H10O2 ISOMERS         EST 0.69 UGM./M↑3
NITROCRESOLS?             L 0.014 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 13. UGM./M↑3
AMMONIUM CHLORIDE         3 0.29 UGM./M↑3
AMMONIUM NITRATE          2 1.3 UGM./M↑3
SODIUM NITRATE            1 0.031 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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POMONA 1310 8/17/73 TO 1510 8/17/73 PDT

 LAP 294   -2 UG BBA 1310-1510
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0181 TO RUN 0215
DATE 031175, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 870E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.86 UGM./M+3
ALKANES LOW MW              CL 0.39 UGM./M+3
ALKANES MED. MW             CL 0.16 UGM./M+3
TOTAL ALKENES                  0.79 UGM./M+3
ALKENES LOW MW              CL 0.14 UGM./M+3

ALKENES MED. MW             CL 0.23 UGM./M+3
ALKENES HI MW               CL 0.11 UGM./M+3
ALPHA PINENE                   0.48 UGM./M+3
TERPENES AS PINENE          CL 0.34 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.30 UGM./M+3

XYLENES, ETHYL BENZENE      CL 0.050 UGM./M+3
ALKYL BENZENES C9H12        CL 0.60 UGM./M+3
ALKYL BENZENES C10H14       CL 0.12 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.021 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.053 UGM./M+3
PHENOL+NO2,CHO,CO2H?     EST. 0.23 UGM./M+3
DIHYDROXYBENZENES            1 0.079 UGM./M+3
BENZALDEHYDE (+INTERF.)      L 0.020 UGM /M+3
PHENOL         .             1 0.023 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.94 UGM./M+3
HEXANDIOIC ACID              4 2.4 UGM./M+3
METHYLHEXANDIOIC ACID        1 0.80 UGM./M+3
BENZOYL ION (ARBITRARY)        2.3 UGM./M+3
ACIDS (AS ACETIC ACID)     EST 0.52 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.18 UGM./M+3
CONH FRAGMENT (RELATIVE)     2.5 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)   0.17 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)   0.21 UGM./M+3
PIPERIDINES (+ISOMERS)     EST 0.034 UGM /M+3

ACRIDINE & ISOMERS           L 0.014 UGM /M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          6.4 UGM./M+3
C6H10O3 ISOMERS          EST 0.24 UGM./M+3
HCO(CH2)4ONO2+ISOMERS    EST 0.15 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.66 UGM./M+3
C6H8O2 ISOMERS           EST 1.2 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 8.5 UGM./M+3
AMMONIUM CHLORIDE         3 0.075 UGM./M+3
AMMONIUM NITRATE          2 2.3 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)     EST 0.086 UGM./M+3
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POMONA 1510 8/17/73 TO 1710 8/17/73 PDT

 LAP 295   - 2UG BBA 1510-1710
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0216 TO RUN 0250
DATE 031175, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 870E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.63 UGM./M+3
ALKANES LOW MW             CL 0.26 UGM./M+3
ALKANES MED. MW            CL 0.24 UGM./M+3
TOTAL ALKENES                 0.85 UGM./M+3
ALKENES LOW MW             CL 0.11 UGM./M+3

ALKENES MED. MW            CL 0.36 UGM./M+3
ALKENES HI MW              CL 0.16 UGM./M+3
ALPHA PINENE                  0.81 UGM./M+3
TERPENES AS PINENE         CL 0.44 UGM./M+3
XYLENES,MON SUB BENZENES   CL 0.38 UGM./M+3

XYLENES, ETHYL BENZENE     CL 0.10 UGM./M+3
ALKYL BENZENES C9H12       CL 0.93 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.025 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.018 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.025 UGM /M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.11 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.18 UGM./M+3
DIHYDROXYBENZENES           1 0.013 UGM./M+3
PHENOL                      1 0.049 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.92 UGM./M+3
PENTANDIOIC ACID        EST. 0.32 UGM./M+3
HEXANDIOIC ACID             4 1.4 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.99 UGM./M+3
BENZOYL ION (ARBITRARY)       2.6 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.42 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)      4.6 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.011 UGM /M+3
ACRIDINE & ISOMERS        L 0.015 UGM /M+3
PYRIDINE SULFATE        EST 0.096 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)           2.9 UGM./M+3
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PAGE 002.
HCO(CH2)4ONO2+ISOMERS   EST 0.14 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.11 UGM./M↑3
C6H8O2 ISOMERS          EST 0.14 UGM./M↑3
C7H10O2 ISOMERS         EST 0.29 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H16O2 ISOMERS        EST 0.18 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 14. UGM./M↑3
AMMONIUM NITRATE          2 0.10 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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POMONA 1710 8/17/73 TO 1910 8/17/73 PDT

 LAP 296 + 2 UG BBA 1710-1910
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0251 TO RUN 0285
DATE 031275, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 128E +0 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.67 UGM./M+3
ALKANES LOW MW             CL 0.15 UGM./M+3
ALKANES MED. MW            CL 0.40 UGM./M+3
ALKANES HI MW              CL 0.040 UGM./M+3
TOTAL ALKENES                 0.93 UGM./M+3

ALKENES LOW MW             CL 0.052 UGM./M+3
ALKENES MED. MW            CL 0.41 UGM./M+3
ALKENES HI MW              CL 0.19 UGM./M+3
ALPHA PINENE                  0.95 UGM./M+3
TERPENES AS PINENE         CL 0.28 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.37 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.088 UGM /M+3
ALKYL BENZENES C9H12     CL 1.1 UGM./M+3
ALKYL BENZENES C10H14    CL 0.099 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.011 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.016 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.021 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.033 UGM /M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.16 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.19 UGM./M+3
DIHYDROXYBENZENES           1 0.093 UGM./M+3
BENZOQUINONE                L 0.014 UGM./M+3

PHENOL                      1 0.055 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.77 UGM./M+3
PENTANDIOIC ACID        EST. 1.5 UGM./M+3
HEXANDIOIC ACID             4 1.2 UGM./M+3
METHYLHEXANDIOIC ACID       1 1.3 UGM./M+3
BENZOYL ION (ARBITRARY)       1.6 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.47 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)      1.5 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.23 UGM./M+3
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PAGE 002.
PIPERIDINES (+ISOMERS)  EST 0.011 UGM./M↑3
CARBAZOLE                 L 0.018 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)           2.7 UGM./M↑3
C7H12O2 ISOMERS         EST 0.49 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.78 UGM./M↑3
C6H8O2 ISOMERS          EST 0.17 UGM./M↑3
C7H10O2 ISOMERS         EST 0.11 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.0 UGM./M↑3
AMMONIUM CHLORIDE         3 0.032 UGM./M↑3
AMMONIUM NITRATE          2 0.11 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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POMONA 1910 8/17/73 TO 2200 8/17/73 PDT

 LAP 297 + 2UGM BBA 1910-2200
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0131 TO RUN 0165
DATE 031075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 128E +0 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 800E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.97 UGM./M↑3
ALKANES LOW MW           CL 0.59 UGM./M↑3
ALKANES MED. MW          CL 0.16 UGM./M↑3
TOTAL ALKENES               0.73 UGM./M↑3
ALKENES LOW MW           CL 0.11 UGM./M↑3

ALKENES MED. MW          CL 0.27 UGM./M↑3
ALKENES HI MW            CL 0.14 UGM./M↑3
ALPHA PINENE                0.67 UGM./M↑3
TERPENES AS PINENE       CL 0.36 UGM./M↑3
XYLENES,MON SUB BENZENES CL 0.29 UGM./M↑3

XYLENES, ETHYL BENZENE   CL 0.029 UGM./M↑3
ALKYL BENZENES C9H12     CL 1.3 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.032 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.048 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.017 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.064 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.17 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.056 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.018 UGM./M↑3
PHENOL                    1 0.099 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.89 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.045 UGM./M↑3
PENTANDIOIC ACID       EST. 0.74 UGM./M↑3
HEXANDIOIC ACID           4 1.1 UGM./M↑3
BENZOYL ION (ARBITRARY)     1.9 UGM./M↑3

ACIDS (AS ACETIC ACID)  EST 0.39 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    4.1 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.098 UGM./M↑3
PYRIDINE SULFATE        EST 0.12 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.1 UGM./M↑3
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C6H1003 ISOMERS         EST 0.21 UGM./M+3
C7H1202 ISOMERS         EST 0.11 UGM./M+3
C5H1003 ISOMERS         EST 0.10 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H802 ISOMERS          EST 0.65 UGM./M+3
C7H1002 ISOMERS         EST 0.17 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.7 UGM./M+3
AMMONIUM CHLORIDE         3 0.27 UGM./M+3
AMMONIUM NITRATE          2 1.0 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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DOMINGUEZ HILLS 2200 10/4/73 TO 2200 10/5/73

 LAD 239 2200-2200 24 HRS
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0586 TO RUN 0620
DATE 000875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 104E +1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 140E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.41 UGM./M+3
ALKANES LOW MW             CL 0.084 UGM./M+3
ALKANES MED. MW            CL 0.085 UGM./M+3
ALKANES HI MW              CL 0.13 UGM./M+3
TOTAL ALKENES                 0.61 UGM./M+3

ALKENES LOW MW             CL 0.025 UGM./M+3
ALKENES MED. MW            CL 0.14 UGM./M+3
ALKENES HI MW              CL 0.28 UGM./M+3
ALPHA PINENE                  0.53 UGM./M+3
TERPENES AS PINENE         CL 0.19 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.13 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.021 UGM./M+3
ALKYL BENZENES C9H12     CL 0.61 UGM./M+3
DIPHENYL METHANE+ISOMERS CL 0.020 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.014 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.27 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.015 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.029 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.043 UGM./M+3
DIHYDROXYBENZENES          1 0.11 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.024 UGM./M+3

PHENOL                      1 0.031 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.17 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.049 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.028 UGM./M+3
PENTANDIOIC ACID       EST. 2.2 UGM./M+3
HEXANDIOIC ACID             4 3.7 UGM./M+3

METHYLHEXANDIOIC ACID      1 1.4 UGM./M+3
BENZOYL ION (ARBITRARY)      0.60 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.83 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     1.1 UGM./M+3
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PAGE 002.
C3H5N2 FRAGMENT (RELATIVE)  0.20 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.031 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 1.3 UGM./M+3
C8H503 (PHTHALATES)         2.0 UGM./M+3
C6H1003 ISOMERS         EST 0.090 UGM /M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS          EST 0.99 UGM./M+3
C6H802 ISOMERS          EST 0.60 UGM./M+3
C7H1002 ISOMERS         EST 0.31 UGM./M+3
C5H803 ISOMERS          EST 0.19 UGM./M+3
C5H604 ISOMERS          EST 0.062 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C8H1204 (NORPINIC ACID?)EST 0.083 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 30. UGM./M+3
AMMONIUM CHLORIDE         3 0.060 UGM /M+3
AMMONIUM NITRATE          2 0.60 UGM./M+3
SODIUM NITRATE            1 0.29 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.44 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.030 UGM./M+3
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DOMINGUEZ HILLS 1110 10/5/73 TO 1310 10/5/73

 LAD 244 DOMIGUES  HILLS 2HR
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0286 TO RUN 0320
DATE 031275, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 860E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 850E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 0.63 UGM./M+3
ALKANES LOW MW            CL 0.33 UGM./M+3
ALKANES MED. MW           CL 0.20 UGM./M+3
TOTAL ALKENES                0.69 UGM./M+3
ALKENES LOW MW            CL 0.072 UGM./M+3

ALKENES MED. MW           CL 0.29 UGM./M+3
ALKENES HI MW             CL 0.19 UGM./M+3
TERPENES AS PINENE        CL 0.12 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.20 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.024 UGM./M+3

ALKYL BENZENES C9H12      CL 0.15 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.039 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?    EST. 0.34 UGM./M+3
DIHYDROXYBENZENES          1 0.082 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.74 UGM./M+3
PENTANDIOIC ACID        EST. 0.30 UGM./M+3
HEXANDIOIC ACID            4 0.36 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.97 UGM./M+3
BENZOYL ION (ARBITRARY)      1.8 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.42 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     1.6 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.20 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.22 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.5 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.68 UGM./M+3
C6H8O2 ISOMERS          EST 0.30 UGM./M+3
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PAGE 002.

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 10. UGM./M+3
AMMONIUM CHLORIDE         3 0.20 UGM./M+3
AMMONIUM NITRATE          2 1.1 UGM./M+3
SODIUM NITRATE            1 0.073 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.59 UGM./M+3
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DOMINGUEZ HILLS 1310 10/5/73 TO 1510 10/5/73

 LAD 245   1212-1409
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0321 TO RUN 0355
DATE 031275, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 790E -1 CUBIC METERS, ALIQUOT=0. 999E +0
INST. SENSITIVITY=0. 850E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.6 UGM./M+3
ALKANES LOW MW            CL 0.50 UGM./M+3
ALKANES MED. MW           CL 0.88 UGM./M+3
ALKANES HI MW             CL 0.049 UGM./M+3
TOTAL ALKENES                1.5 UGM./M+3

ALKENES LOW MW            CL 0.13 UGM./M+3
ALKENES MED. MW           CL 0.89 UGM./M+3
ALKENES HI MW             CL 0.36 UGM./M+3
ALPHA PINENE                 0.80 UGM./M+3
TERPENES AS PINENE        CL 0.41 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.39 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.14 UGM./M+3
ALKYL BENZENES C9H12      CL 1.7 UGM./M+3
ALKYL BENZENES C10H14     CL 0.12 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.010 UGM./M+3
METHYL NAPHTHALENES+INT.    L 0.0068 UGM./M+3
ANTHRACENE-PHENANTHRENE     2 0.0093 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.019 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.070 UGM./M+3
DIHYDROXYBENZENES           1 0.019 UGM./M+3
BENZALDEHYDE (+INTERF.)     L 0.050 UGM./M+3
PHENOL                      1 0.054 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 1.2 UGM./M+3
PENTANDIOIC ACID       EST. 0.66 UGM./M+3
HEXANDIOIC ACID             4 0.67 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.40 UGM./M+3
BENZOYL ION (ARBITRARY)      3.0 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.47 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     2.4 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.49 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.027 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.014 UGM./M+3
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PAGE 002.
QUINOLINE (-INTERFER?)    L 0.011 UGM /M↑3
PYRIDINE SULFATE        EST 0.10 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          3.4 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.16 UGM./M↑3
C6H8O2 ISOMERS          EST 0.25 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 8.3 UGM./M↑3
AMMONIUM CHLORIDE         3 0.10 UGM./M↑3
AMMONIUM NITRATE          2 0.43 UGM./M↑3
SODIUM NITRATE            1 0.14 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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DENVER REGENCY 1930 6/11/73 TO 1200 7/11/73

 DER 1 193 0 6/11/73 -1200
FILE NO. 0003, FIT TOL. 003 (MILLIMASS) RUN 0456 TO RUN 0490
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 170E +2 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 2.6 UGM./M+3
ALKANES LOW MW             CL 0.36 UGM./M+3
ALKANES MED. MW            CL 1.0 UGM./M+3
ALKANES HI MW              CL 1.0 UGM./M+3
TOTAL ALKENES                 3.1 UGM./M+3

ALKENES LOW MW             CL 0.22 UGM./M+3
ALKENES MED. MW            CL 1.3 UGM./M+3
ALKENES HI MW              CL 1.5 UGM./M+3
ALPHA PINENE                  2.2 UGM./M+3
TERPENES AS PINENE         CL 0.97 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.52 UGM./M+3
XYLENES, ETHYL BENZENE     CL 0.24 UGM./M+3
ALKYL BENZENES C9H12       CL 3.7 UGM./M+3
ALKYL BENZENES C10H14      CL 0.16 UGM./M+3
BIPHENYL                    1 0.013 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.010 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.066 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.080 UGM./M+3
METHYL NAPHTHALENES+INT.    L 0.098 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.020 UGM./M+3
PYRENE & ISOMERS C16H10     L 0.083 UGM./M+3
CHRYSENE, ISOMERS C18H12    L 0.054 UGM./M+3

PERYLENE, ISOMERS C20H12    L 0.048 UGM./M+3
BENZOPERYLENE+INTERFER.     E 0.16 UGM./M+3
DIBENZANTHRACENES C22H14    E 0.065 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?    EST. 0.061 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.036 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.017 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.026 UGM./M+3
HEXANDIOIC ACID             4 1.3 UGM./M+3
BENZOYL ION (ARBITRARY)       0.17 UGM./M+3
ACIDS (AS ACETIC ACID)   EST 1.1 UGM./M+3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.12 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.65 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.065 UGM./M↑3
ACRIDINE & ISOMERS         L 0.018 UGM./M↑3
QUINOLINE (-INTERFER?)     L 0.0086 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.6 UGM./M↑3
C6H12O3 ISOMERS         EST 0.092 UGM./M↑3
C6H10O3 ISOMERS         EST 0.11 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.23 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.22 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H8O2 ISOMERS          EST 0.18 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 3.6 UGM./M↑3
AMMONIUM CHLORIDE         3 1.9 UGM./M↑3
AMMONIUM NITRATE          2 5.4 UGM./M↑3
SODIUM NITRATE            1 0.22 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.20 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.32 UGM./M↑3
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DENVER REGENCY 1210 7/11/73 TO 0800 8/11/73

 DER 2 165 0 7/11/73 -1630
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0491 TO RUN 0525
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 190E +2 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.5 UGM./M+3
ALKANES LOW MW            CL 0.30 UGM./M+3
ALKANES MED. MW           CL 0.52 UGM./M+3
ALKANES HI MW             CL 0.63 UGM./M+3
TOTAL ALKENES                1.9 UGM./M+3

ALKENES LOW MW            CL 0.24 UGM./M+3
ALKENES MED. MW           CL 0.69 UGM./M+3
ALKENES HI MW             CL 1.1 UGM./M+3
ALPHA PINENE                 1.1 UGM./M+3
TERPENES AS PINENE        CL 0.46 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.40 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.17 UGM./M+3
ALKYL BENZENES C9H12      CL 2.6 UGM./M+3
ALKYL BENZENES C10H14     CL 0.073 UGM./M+3
DIPHENYL METHANE+ISOMERS CL 0.014 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.037 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.0094 UGM./M+3
ANTHRACENE-PHENANTHRENE    2 0.0053 UGM./M+3
PYRENE & ISOMERS C16H10    L 0.063 UGM./M+3
DIBENZANTHRACENES C22H14   E 0.016 UGM./M+3

CORONENE?                  E 0.045 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
DIHYDROXYBENZENES          1 0.019 UGM./M+3
BENZOQUINONE               L 0.017 UGM./M+3
BENZALDEHYDE (+INTERF.)    L 0.011 UGM./M+3
PHENOL                     1 0.020 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.018 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.065 UGM./M+3
PENTANDIOIC ACID        EST. 0.20 UGM./M+3
HEXANDIOIC ACID            4 1.2 UGM./M+3
BENZOYL ION (ARBITRARY)      0.30 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 1.2 UGM./M+3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.083 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.86 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.38 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.083 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.16 UGM./M+3

QUINOLINE (-INTERFER?)    L 0.013 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.0 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 2.2 UGM./M+3
C6H12O3 ISOMERS         EST 0.083 UGM./M+3
C6H10O3 ISOMERS         EST 0.093 UGM./M+3
C7H12O2 ISOMERS         EST 0.083 UGM./M+3

C5H10O3 ISOMERS         EST 0.21 UGM./M+3
HOOC(CH2)4ONO2          EST 0.083 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.16 UGM./M+3
C6H8O2 ISOMERS          EST 0.27 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 18. UGM./M+3
AMMONIUM CHLORIDE         3 1.4 UGM./M+3
AMMONIUM NITRATE          2 9.0 UGM./M+3
SODIUM NITRATE            1 0.35 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.058 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.24 UGM./M+3
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DENVER REGENCY 0810 8/11/73 TO 1820 8/11/73

 DER 3 081 0 8/11/73  - 1820
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0526 TO RUN 0560
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 104E +2 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 2.9 UGM./M↑3
ALKANES LOW MW           CL 0.49 UGM./M↑3
ALKANES MED. MW          CL 0.97 UGM./M↑3
ALKANES HI MW            CL 1.0 UGM./M↑3
TOTAL ALKENES               3.8 UGM./M↑3

ALKENES LOW MW           CL 0.40 UGM./M↑3
ALKENES MED. MW          CL 1.1 UGM./M↑3
ALKENES HI MW            CL 2.1 UGM./M↑3
ALPHA PINENE                2.8 UGM./M↑3
TERPENES AS PINENE       CL 0.91 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.63 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.39 UGM./M↑3
ALKYL BENZENES C9H12     CL 4.3 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.46 UGM./M↑3
BIPHENYL                  1 0.011 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.012 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.057 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.010 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.020 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0089 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.064 UGM./M↑3

CHRYSENE, ISOMERS C18H12  L 0.032 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.043 UGM./M↑3
DIBENZANTHRACENES C22H14  E 0.10 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.052 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.10 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.039 UGM./M↑3
DIHYDROXYBENZENES         1 0.068 UGM./M↑3
PHENOL                    1 0.020 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.033 UGM./M↑3
PENTANDIOIC ACID       EST. 0.98 UGM./M↑3
HEXANDIOIC ACID           4 2.4 UGM./M↑3
METHYLHEXANDIOIC ACID     1 1.1 UGM./M↑3
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PAGE 002.
BENZOYL ION (ARBITRARY)     0.41 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 2.4 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.074 UGM./M↑3
CONH FRAGMENT (RELATIVE)    2.3 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.32 UGM./M↑3
CARBAZOLE                 L 0.0077 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.022 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 1.4 UGM./M↑3
C8H503 (PHTHALATES)         5.8 UGM./M↑3
C7H1403 ISOMERS         EST 0.074 UGM./M↑3
C7H1203 ISOMERS         EST 0.24 UGM./M↑3
C6H1203 ISOMERS         EST 0.092 UGM./M↑3

C7H1402 ISOMERS         EST 0.32 UGM./M↑3
C6H1003 ISOMERS         EST 0.31 UGM./M↑3
C5H1003 ISOMERS         EST 0.16 UGM./M↑3
C6H1202 ISOMERS         EST 0.36 UGM./M↑3
C5H1002 ISOMERS         EST 0.17 UGM./M↑3

HOOC(CH2)5ONO2          EST 0.13 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.14 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.24 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.092 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS          EST 0.57 UGM./M↑3
C6H802 ISOMERS          EST 0.21 UGM./M↑3
C7H1002 ISOMERS         EST 0.37 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H1402 ISOMERS         EST 0.30 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 11. UGM./M↑3
AMMONIUM CHLORIDE         3 3.4 UGM./M↑3
AMMONIUM NITRATE          2 10. UGM./M↑3
SODIUM NITRATE            1 0.95 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.092 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.23 UGM./M↑3
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DENVER REGENCY 1840 8/11/73 TO 0810 9/11/73

 DER 4 184 0 8/11/73  - 0810
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0141 TO RUN 0175
DATE 750822, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 138E +2 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 415E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 2.4 UGM./M+3
ALKANES LOW MW           CL 0.63 UGM./M+3
ALKANES MED. MW          CL 1.0 UGM./M+3
ALKANES HI MW            CL 0.44 UGM./M+3
TOTAL ALKENES               2.8 UGM./M+3

ALKENES LOW MW           CL 0.54 UGM./M+3
ALKENES MED. MW          CL 1.3 UGM./M+3
ALKENES HI MW            CL 0.60 UGM./M+3
ALPHA PINENE                1.9 UGM./M+3
TERPENES AS PINENE       CL 0.65 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.45 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.21 UGM./M+3
ALKYL BENZENES C9H12     CL 2.9 UGM./M+3
ALKYL BENZENES C10H14    CL 0.33 UGM./M+3
DIPHENYL METHANE+ISOMERS CL 0.017 UGM./M+3

DIPHENYL ETHANE & ISOMERS L 0.050 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.054 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.10 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.045 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.064 UGM./M+3
CHRYSENE, ISOMERS C18H12  L 0.043 UGM./M+3

PERYLENE, ISOMERS C20H12  L 0.024 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.049 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.10 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0058 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.026 UGM./M+3
DIHYDROXYBENZENES         1 0.079 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.015 UGM /M+3
PHENOL                    1 0.039 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.092 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.021 UGM./M+3
PENTANDIOIC ACID       EST. 0.82 UGM./M+3
HEXANDIOIC ACID           4 0.49 UGM./M+3
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PAGE 002.
METHYLHEXANDIOIC ACID     1 0.49 UGM./M+3
BENZOYL ION (ARBITRARY)     0.21 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 1.1 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.11 UGM./M+3
CONH FRAGMENT (RELATIVE)    3.2 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.72 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.022 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.057 UGM./M+3

CARBAZOLE                 L 0.0054 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.017 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.7 UGM./M+3
C6H10O3 ISOMERS         EST 0.13 UGM./M+3
C5H10O3 ISOMERS         EST 0.083 UGM./M+3
C6H12O2 ISOMERS         EST 0.092 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.083 UGM./M+3

HCO(CH2)5COONO2+ISOMERS EST 0.14 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.66 UGM./M+3
C6H8O2 ISOMERS          EST 0.12 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 32. UGM./M+3
AMMONIUM CHLORIDE         3 0.18 UGM./M+3
AMMONIUM NITRATE          2 7.7 UGM./M+3
SODIUM NITRATE            1 0.40 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.075 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.50 UGM./M+3
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MONTBELLO 0950 8/11/73 TO 1950 8/11/73

 DEM 1
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0201 TO RUN 0315
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 960E +1 CUBIC METERS, ALIQUOT=0. 200E +0
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.67 UGM./M+3
ALKANES LOW MW           CL 0.23 UGM./M+3
ALKANES MED. MW          CL 0.21 UGM./M+3
ALKANES HI MW            CL 0.017 UGM./M+3
TOTAL ALKENES               0.76 UGM./M+3

ALKENES LOW MW           CL 0.19 UGM./M+3
ALKENES MED. MW          CL 0.38 UGM./M+3
ALKENES HI MW            CL 0.23 UGM./M+3
ALPHA PINENE                0.44 UGM./M+3
TERPENES AS PINENE       CL 0.26 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.22 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.075 UGM./M+3
ALKYL BENZENES C9H12     CL 0.09 UGM./M+3
ALKYL BENZENES C10H14    CL 0.11 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.025 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.0099 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.011 UGM /M+3
PERYLENE, ISOMERS C20H12  L 0.0088 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.011 UGM./M+3

DIBENZANTHRACENES C22H14  E 0.013 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.045 UGM /M+3
TRIMETHYLPHENOL+ISOMERS EST 0.025 UGM /M+3
DIHYDROXYBENZENES          1 0.070 UGM./M+3
BENZALDEHYDE (+INTERF.)    L 0.013 UGM /M+3
PHENOL                     1 0.044 UGM /M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.044 UGM /M+3
ETHYL BENZOIC ISOMERS  EST. 0.015 UGM /M+3
PENTANDIOIC ACID       EST. 0.16 UGM./M+3
HEXANDIOIC ACID            4 0.24 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.43 UGM./M+3

BENZOYL ION (ARBITRARY)      0.40 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.30 UGM./M+3
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PAGE 002.

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.061 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.36 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.008 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.008 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.15 UGM./M+3

QUINOLINE (-INTERFER?)    L 0.035 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.9 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 1.3 UGM./M+3
C6H12O3 ISOMERS         EST 0.081 UGM./M+3
C6H10O3 ISOMERS         EST 0.081 UGM./M+3
C5H10O3 ISOMERS         EST 0.088 UGM./M+3

C5H10O2 ISOMERS         EST 0.21 UGM./M+3
HOOC(CH2)4ONO2          EST 0.054 UGM./M+3
HCO(CH2)5ONO2+ISOMERS   EST 0.054 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.054 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.095 UGM./M+3

HCO(CH2)4COONO          EST 0.061 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.59 UGM./M+3
C6H8O2 ISOMERS          EST 0.39 UGM./M+3
C7H10O2 ISOMERS         EST 0.21 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.081 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 8.3 UGM./M+3
AMMONIUM CHLORIDE         3 0.82 UGM./M+3
AMMONIUM NITRATE          2 4.7 UGM./M+3
SODIUM NITRATE            1 0.039 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.027 UGM./M+3
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MONTBELLO 2005 8/11/73 TO 0850 9/11/73

 DEM 2 2005-0850
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0246 TO RUN 0280
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 131E +2 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.59 UGM./M+3
ALKANES LOW MW           CL 0.12 UGM./M+3
ALKANES MED. MW          CL 0.26 UGM./M+3
ALKANES HI MW            CL 0.073 UGM./M+3
TOTAL ALKENES               0.61 UGM./M+3

ALKENES LOW MW           CL 0.038 UGM./M+3
ALKENES MED. MW          CL 0.20 UGM./M+3
ALKENES HI MW            CL 0.17 UGM./M+3
ALPHA PINENE                0.29 UGM./M+3
TERPENES AS PINENE       CL 0.12 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.11 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.041 UGM /M+3
ALKYL BENZENES C9H12     CL 0.51 UGM./M+3
ALKYL BENZENES C10H14    CL 0.019 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.0069 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.011 UGM /M+3
BENZOPERYLENE+INTERFER.   E 0.013 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.083 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0059 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.029 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.018 UGM./M+3
DIHYDROXYBENZENES         1 0.022 UGM./M+3
PHENOL                    1 0.0081 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.068 UGM./M+3
HEXANDIOIC ACID           4 0.19 UGM./M+3
BENZOYL ION (ARBITRARY)     0.11 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.15 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
C4H8N2 FRAGMENT (RELATIVE)  0.19 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0088 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.044 UGM /M+3
QUINOLINE (-INTERFER?)    L 0.015 UGM /M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.99 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.19 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 0.68 UGM./M+3
AMMONIUM CHLORIDE         3 0.18 UGM./M+3
AMMONIUM NITRATE          2 0.39 UGM./M+3
SODIUM NITRATE            1 0.088 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.059 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.19 UGM./M+3
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NCAR BOULDER 1800 6/11/73 TO 1640 7/11/73

 DEN 1 180 0-1640 11 /06/73
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0316 TO RUN 0350
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 230E +2 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.31 UGM./M+3
ALKANES LOW MW           CL 0.059 UGM./M+3
ALKANES MED. MW          CL 0.15 UGM./M+3
ALKANES HI MW            CL 0.034 UGM./M+3
TOTAL ALKENES               0.45 UGM./M+3

ALKENES LOW MW           CL 0.087 UGM./M+3
ALKENES MED. MW          CL 0.24 UGM./M+3
ALKENES HI MW            CL 0.14 UGM./M+3
ALPHA PINENE                0.30 UGM./M+3
TERPENES AS PINENE       CL 0.14 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.12 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.033 UGM./M+3
ALKYL BENZENES C9H12     CL 0.51 UGM./M+3
ALKYL BENZENES C10H14    CL 0.10 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.020 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0034 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0046 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0020 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.043 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.013 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.015 UGM./M+3
DIHYDROXYBENZENES         1 0.028 UGM./M+3
PHENOL                    1 0.022 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.016 UGM./M+3
PENTANDIOIC ACID       EST. 0.33 UGM./M+3
HEXANDIOIC ACID           4 0.19 UGM./M+3
BENZOYL ION (ARBITRARY)     0.12 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.24 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.38 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.30 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.19 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0092 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0046 UGM./M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.5 UGM./M+3
C7H12O2 ISOMERS        EST 0.088 UGM /M+3
HCO(CH2)5COONO2+ISOMERS EST 0.033 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS         EST 0.23 UGM./M+3
C6H8O2 ISOMERS         EST 0.23 UGM./M+3
C7H10O2 ISOMERS        EST 0.054 UGM./M+3
C5H8O3 ISOMERS         EST 0.046 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 1.4 UGM./M+3
AMMONIUM CHLORIDE         3 0.18 UGM./M+3
AMMONIUM NITRATE          2 4.4 UGM./M+3
SODIUM NITRATE            1 0.10 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)   EST 0.13 UGM./M+3
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NCAR BOULDER 1640 8/11/73 TO 0950 9/11/73

 DEN 3
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0386 TO RUN 0420
DATE 750820, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 175E +2 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 550E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.40 UGM./M+3
ALKANES LOW MW              CL 0.098 UGM./M+3
ALKANES MED. MW             CL 0.19 UGM./M+3
ALKANES HI MW               CL 0.043 UGM./M+3
TOTAL ALKENES                  0.51 UGM./M+3

ALKENES LOW MW              CL 0.082 UGM./M+3
ALKENES MED. MW             CL 0.25 UGM./M+3
ALKENES HI MW               CL 0.18 UGM./M+3
ALPHA PINENE                   0.51 UGM./M+3
TERPENES AS PINENE          CL 0.14 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.12 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.015 UGM./M+3
ALKYL BENZENES C9H12     CL 0.65 UGM./M+3
ALKYL BENZENES C10H14    CL 0.046 UGM./M+3
BIPHENYL                  1 0.0031 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.0096 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0060 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.022 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.013 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.0077 UGM./M+3

BENZOPERYLENE+INTERFER.   E 0.020 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.012 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.044 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.022 UGM./M+3
PENTANDIOIC ACID       EST. 0.22 UGM./M+3
BENZOYL ION (ARBITRARY)     0.13 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.23 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.19 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.22 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.071 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0077 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0032 UGM./M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.5 UGM./M+3
C7H12O3 ISOMERS          EST 0.077 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.055 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H8O2 ISOMERS           EST 0.088 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 4.4 UGM./M+3
AMMONIUM CHLORIDE         3 0.25 UGM./M+3
AMMONIUM NITRATE          2 2.0 UGM./M+3
SODIUM NITRATE            1 0.043 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)     EST 0.15 UGM./M+3
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WASHINGTON UNIV. 1730 9/05/73 TO 2330 CDT

 SLW14F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0102 TO RUN 0132
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 702E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 1.8 UGM./M+3
ALKANES LOW MW           CL 0.10 UGM./M+3
ALKANES MED. MW          CL 0.70 UGM./M+3
ALKANES HI MW            CL 0.23 UGM./M+3
TOTAL ALKENES               1.8 UGM./M+3

ALKENES LOW MW           CL 0.054 UGM./M+3
ALKENES MED. MW          CL 0.53 UGM./M+3
ALKENES HI MW            CL 0.64 UGM./M+3
ALPHA PINENE                1.8 UGM./M+3
TERPENES AS PINENE       CL 0.76 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.61 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.18 UGM./M+3
ALKYL BENZENES C9H12     CL 2.7 UGM./M+3
ALKYL BENZENES C10H14    CL 0.14 UGM./M+3
BIPHENYL                  1 1.8 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.023 UGM /M+3
DIPHENYL ETHANE & ISOMERS L 0.026 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.18 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.088 UGM /M+3
ALKYL NAPHTHALENES C12H12 L 0.095 UGM /M+3
ANTHRACENE-PHENANTHRENE   2 0.022 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.066 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.0040 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.0040 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.027 UGM /M+3
CORONENE?                 E 0.054 UGM /M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.067 UGM /M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.48 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.17 UGM./M+3
DIHYDROXYBENZENES         1 0.10 UGM./M+3
BENZOQUINONE              L 0.013 UGM /M+3

NAPHTHOQUINONE?        EST. 0.0064 UGM./M+3
BENZALDEHYDE (+INTERF )   L 0.047 UGM /M+3
PHENOL                    1 0.084 UGM /M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.13 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.089 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.040 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.0034 UGM./M↑3
PENTANDIOIC ACID       EST. 1.2 UGM./M↑3

HEXANDIOIC ACID            4 0.77 UGM./M↑3
METHYLHEXANDIOIC ACID      1 0.86 UGM./M↑3
BENZOYL ION (ARBITRARY)      0.62 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.52 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.91 UGM./M↑3
CONH FRAGMENT (RELATIVE)    2.2 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.16 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.25 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.032 UGM./M↑3

PYRIDINE + PYRIDYL CPDS   L 0.0032 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.12 UGM./M↑3
CARBAZOLE                 L 0.026 UGM./M↑3
ACRIDINE & ISOMERS        L 0.0035 UGM./M↑3
PIPERAZINE?             EST 0.0040 UGM./M↑3

NITRONAPHTHALENE        EST 0.0036 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         25. UGM./M↑3
C7H14O3 ISOMERS         EST 0.081 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 1.4 UGM./M↑3
C7H12O3 ISOMERS         EST 0.065 UGM./M↑3
C6H12O3 ISOMERS         EST 0.21 UGM./M↑3

C5H8O4 (GLUTARIC ACID?) EST 3.2 UGM./M↑3
C7H14O2 ISOMERS         EST 0.032 UGM./M↑3
C6H10O3 ISOMERS         EST 0.097 UGM./M↑3
C7H12O2 ISOMERS         EST 0.19 UGM./M↑3
C5H10O3 ISOMERS         EST 0.19 UGM./M↑3

C6H12O2 ISOMERS         EST 0.16 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.21 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.040 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.19 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.040 UGM./M↑3

HCO(CH2)5COONO2+ISOMERS EST 0.11 UGM./M↑3
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PAGE 003.
HCO(CH2)4COONO2+ISOMERS EST 0.032 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.065 UGM./M+3
HCO(CH2)4COONO          EST 0.10 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.91 UGM./M+3
C6H8O2 ISOMERS          EST 0.60 UGM./M+3
C7H10O2 ISOMERS         EST 0.30 UGM./M+3
C5H8O3 ISOMERS          EST 0.065 UGM./M+3
C5H6O4 ISOMERS          EST 0.032 UGM./M+3

C6H8O4 ISOMERS          EST 0.11 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0040 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.097 UGM./M+3
C10H14O3 ISOMERS        EST 0.056 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.7 UGM./M+3
AMMONIUM CHLORIDE         3 0.75 UGM./M+3
AMMONIUM NITRATE          2 1.3 UGM./M+3
SODIUM NITRATE            1 0.42 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.075 UGM./M+3
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WASHINGTON UNIV. 0025 9/06/73 TO 0715 CDT

 SLW15F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0066 TO RUN 010
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 820E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.56 UGM./M+3
ALKANES LOW MW           CL 0.029 UGM./M+3
ALKANES MED. MW          CL 0.14 UGM./M+3
ALKANES HI MW            CL 0.17 UGM./M+3
TOTAL ALKENES               0.57 UGM./M+3

ALKENES LOW MW           CL 0.025 UGM./M+3
ALKENES MED. MW          CL 0.29 UGM./M+3
ALKENES HI MW            CL 0.33 UGM./M+3
ALPHA PINENE                0.96 UGM./M+3
TERPENES AS PINENE       CL 0.45 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.37 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.10 UGM./M+3
ALKYL BENZENES C9H12     CL 1.2 UGM./M+3
ALKYL BENZENES C10H14    CL 0.086 UGM./M+3
BIPHENYL                  1 0.20 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0095 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.013 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.080 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.040 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.012 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0092 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.029 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.0092 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.0027 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.031 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.61 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.080 UGM./M+3
DIHYDROXYBENZENES         1 0.069 UGM./M+3
BENZOQUINONE              L 0.0075 UGM./M+3

BENZALDEHYDE (+INTERF )   L 0.016 UGM./M+3
PHENOL                    1 0.072 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.11 UGM./M+3
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PAGE 002.
METHYL BENZOIC ISOMERS EST. 0.037 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.019 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.011 UGM./M↑3
PENTANDIOIC ACID       EST. 0.83 UGM./M↑3
HEXANDIOIC ACID           4 0.73 UGM./M↑3

METHYLHEXANDIOIC ACID     1 0.49 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.49 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.33 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.49 UGM./M↑3
CONH FRAGMENT (RELATIVE)    2.3 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.39 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.076 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.027 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.062 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.028 UGM./M↑3
CARBAZOLE                 L 0.018 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0020 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         21. UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 0.55 UGM./M↑3
C7H12O3 ISOMERS         EST 0.041 UGM./M↑3
C6H12O3 ISOMERS         EST 0.069 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 1.2 UGM./M↑3

C6H10O3 ISOMERS         EST 0.12 UGM./M↑3
C7H12O2 ISOMERS         EST 0.10 UGM./M↑3
C5H10O3 ISOMERS         EST 0.35 UGM./M↑3
C4H6O4 (SUCCINIC ACID?) EST 0.97 UGM./M↑3
C6H12O2 ISOMERS         EST 0.069 UGM./M↑3

C5H10O2 ISOMERS         EST 0.027 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.027 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.027 UGM./M↑3
HOOC(CH2)4COONO2        EST 0.027 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.027 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.58 UGM./M↑3
C6H8O2 ISOMERS          EST 0.41 UGM./M↑3
C7H10O2 ISOMERS         EST 0.20 UGM./M↑3
C5H8O3 ISOMERS          EST 0.18 UGM./M↑3
C5H6O4 ISOMERS          EST 0.027 UGM./M↑3
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PAGE 003.
C6H8O4 ISOMERS          EST 0.034 UGM /M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.048 UGM /M+3
C10H16O2 ISOMERS        EST 0.076 UGM /M+3
C10H16O3 (PINONIC ACID?)EST 0.15 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.1 UGM./M+3
AMMONIUM CHLORIDE         3 0.24 UGM./M+3
AMMONIUM NITRATE          2 0.42 UGM./M+3
SODIUM NITRATE            1 0.41 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.017 UGM /M+3
C5H5CL (HEPTACHLOR?)    EST 0.027 UGM /M+3
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WASHINGTON UNIV. 0755 9/06/73 TO 1215 CDT

 SLW16F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0030 TO RUN 0065
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 520E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 1.9 UGM./M+3
ALKANES LOW MW           CL 0.048 UGM./M+3
ALKANES MED. MW          CL 0.55 UGM./M+3
ALKANES HI MW            CL 0.95 UGM./M+3
TOTAL ALKENES               2.0 UGM./M+3

ALKENES LOW MW           CL 0.0098 UGM./M+3
ALKENES MED. MW          CL 0.37 UGM./M+3
ALKENES HI MW            CL 1.8 UGM./M+3
ALPHA PINENE                2.0 UGM./M+3
TERPENES AS PINENE       CL 0.76 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.71 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.20 UGM./M+3
ALKYL BENZENES C9H12     CL 2.8 UGM./M+3
ALKYL BENZENES C10H14    CL 0.20 UGM./M+3
BIPHENYL                  1 1.1 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.086 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.15 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.086 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.052 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.031 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.026 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.0072 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.015 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.029 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.0065 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.085 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.82 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.14 UGM./M+3
DIHYDROXYBENZENES         1 0.16 UGM./M+3
BENZOQUINONE              L 0.023 UGM./M+3

NAPHTHOQUINONE?        EST. 0.0087 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.039 UGM./M+3
PHENOL                    1 0.090 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.16 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.059 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.031 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.031 UGM./M+3
PENTANDIOIC ACID       EST. 0.86 UGM./M+3

HEXANDIOIC ACID             4 1.9 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.48 UGM./M+3
BENZOYL ION (ARBITRARY)       0.80 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.73 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    1.2 UGM./M+3
CONH FRAGMENT (RELATIVE)     3.1 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.59 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.087 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.13 UGM./M+3

PYRIDINE + PYRIDYL CPDS   L 0.014 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.028 UGM./M+3
CARBAZOLE                 L 0.025 UGM./M+3
ACRIDINE & ISOMERS        L 0.0047 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0097 UGM./M+3

PIPERAZINE?             EST 0.0043 UGM./M+3
PYRIDINE SULFATE        EST 0.043 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.87 UGM./M+3
C8H5O3 (PHTHALATES)         34. UGM./M+3
C7H14O3 ISOMERS         EST 0.054 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 2.9 UGM./M+3
C7H12O3 ISOMERS         EST 0.14 UGM./M+3

C6H12O3 ISOMERS         EST 0.31 UGM./M+3
C5H8O4 (GLUTARIC ACID?) EST 2.6 UGM./M+3
C6H10O3 ISOMERS         EST 0.36 UGM./M+3
C7H12O2 ISOMERS         EST 0.10 UGM./M+3
C5H10O3 ISOMERS         EST 0.12 UGM./M+3

C6H12O2 ISOMERS         EST 0.098 UGM./M+3
C5H10O2 ISOMERS         EST 0.032 UGM./M+3
HOOC(CH2)5ONO2          EST 0.087 UGM./M+3
HOOC(CH2)4ONO2          EST 0.043 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.087 UGM./M+3
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PAGE 003.
HCO(CH2)4ONO2+ISOMERS   EST 0.007 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.098 UGM./M+3
HCO(CH2)4COONO          EST 0.098 UGM./M+3

     CPD. FILE 0057, DATE 082575.  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.3 UGM./M+3
C6H8O2 ISOMERS          EST 0.66 UGM./M+3
C7H10O2 ISOMERS         EST 0.66 UGM./M+3
C5H8O3 ISOMERS          EST 0.58 UGM./M+3

     CPD. FILE 0058, DATE 082575.  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.043 UGM./M+3
C10H14O3 ISOMERS        EST 0.26 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.076 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.098 UGM./M+3

     CPD. FILE 0059, DATE 082575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 15. UGM./M+3
AMMONIUM CHLORIDE         3 0.77 UGM./M+3
AMMONIUM NITRATE          2 1.0 UGM./M+3
SODIUM NITRATE            1 0.76 UGM./M+3

     CPD. FILE 0060, DATE 082575.  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.29 UGM./M+3
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WASHINGTON UNIV. 1240 9/06/73 TO 1625 CDT

 SLW17F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0036
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 416E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 237E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.99 UGM./M+3
ALKANES LOW MW             CL 0.13 UGM./M+3
ALKANES MED. MW            CL 0.47 UGM./M+3
ALKANES HI MW              CL 0.19 UGM./M+3
TOTAL ALKENES                 1.1 UGM./M+3

ALKENES LOW MW             CL 0.13 UGM./M+3
ALKENES MED. MW            CL 0.52 UGM./M+3
ALKENES HI MW              CL 0.46 UGM./M+3
ALPHA PINENE                  1.4 UGM./M+3
TERPENES AS PINENE         CL 0.64 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.65 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.21 UGM./M+3
ALKYL BENZENES C9H12     CL 2.2 UGM./M+3
ALKYL BENZENES C10H14    CL 0.17 UGM./M+3
BIPHENYL                  1 2.4 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.031 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.011 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.25 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.085 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.083 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.017 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.012 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.0068 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.063 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.69 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.11 UGM./M+3
DIHYDROXYBENZENES         1 0.12 UGM./M+3
BENZOQUINONE              L 0.011 UGM./M+3

BENZALDEHYDE (+INTERF.)   L 0.015 UGM./M+3
PHENOL                    1 0.10 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.14 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.036 UGM./M+3
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PAGE 002.
ETHYL BENZOIC ISOMERS  EST. 0.081 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.055 UGM./M+3
PENTANDIOIC ACID       EST. 1.0 UGM./M+3
HEXANDIOIC ACID           4 1.0 UGM./M+3
METHYLHEXANDIOIC ACID     1 1.1 UGM./M+3

BENZOYL ION (ARBITRARY)     0.68 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.54 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.75 UGM./M+3
CONH FRAGMENT (RELATIVE)    3.4 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.26 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.10 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.040 UGM /M+3

PYRIDINE + PYRIDYL CPDS   L 0.0057 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.080 UGM /M+3
CARBAZOLE                 L 0.065 UGM /M+3
ACRIDINE & ISOMERS        L 0.029 UGM /M+3
QUINOLINE (-INTERFER?)    L 0.015 UGM /M+3

PIPERAZINE?             EST 0.012 UGM /M+3
NITRONAPHTHALENE        EST 0.0020 UGM./M+3
PYRIDINE SULFATE        EST 0.040 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         9.8 UGM./M+3
C7H14O3 ISOMERS         EST 0.13 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 0.81 UGM./M+3
C7H12O3 ISOMERS         EST 0.20 UGM./M+3
C6H12O3 ISOMERS         EST 0.11 UGM./M+3

C5H8O4 (GLUTARIC ACID?) EST 1.2 UGM./M+3
C6H10O3 ISOMERS         EST 0.31 UGM./M+3
C7H12O2 ISOMERS         EST 0.081 UGM /M+3
C5H10O3 ISOMERS         EST 0.12 UGM./M+3
C6H12O2 ISOMERS         EST 0.030 UGM /M+3

C5H10O2 ISOMERS         EST 0.040 UGM /M+3
HOOC(CH2)5ONO2          EST 0.040 UGM /M+3
HOOC(CH2)4ONO2          EST 0.092 UGM /M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.092 UGM /M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.030 UGM /M+3

HCO(CH2)5COONO2+ISOMERS EST 0.092 UGM /M+3
HCO(CH2)3COONO2+ISOMERS EST 0.030 UGM /M+3
HCO(CH2)4COONO          EST 0.051 UGM /M+3
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PAGE 003.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.0 UGM./M↑3
C6H8O2 ISOMERS          EST 0.19 UGM./M↑3
C7H10O2 ISOMERS         EST 0.13 UGM./M↑3
C5H8O3 ISOMERS          EST 0.46 UGM./M↑3
C5H6O4 ISOMERS          EST 0.061 UGM./M↑3

C7H7NO4 ISOMERS         EST 0.0041 UGM./M↑3
NITROCRESOLS?             L 0.0051 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.10 UGM./M↑3
C10H16O2 ISOMERS        EST 0.040 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.051 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 13. UGM./M↑3
AMMONIUM CHLORIDE         3 0.35 UGM./M↑3
AMMONIUM NITRATE          2 0.90 UGM./M↑3
SODIUM NITRATE            1 0.64 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.097 UGM./M↑3
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WASHINGTON UNIV. 1645 9/06/73 TO 2305 CDT

 SLW18F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0028
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 760E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 2.4 UGM./M+3
ALKANES LOW MW            CL 0.058 UGM./M+3
ALKANES MED. MW           CL 1.4 UGM./M+3
ALKANES HI MW             CL 0.67 UGM./M+3
TOTAL ALKENES                2.3 UGM./M+3

ALKENES LOW MW            CL 0.047 UGM./M+3
ALKENES MED. MW           CL 1.1 UGM./M+3
ALKENES HI MW             CL 1.4 UGM./M+3
ALPHA PINENE                 2.3 UGM./M+3
TERPENES AS PINENE        CL 0.83 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.62 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.30 UGM./M+3
ALKYL BENZENES C9H12     CL 3.1 UGM./M+3
ALKYL BENZENES C10H14    CL 0.37 UGM./M+3
BIPHENYL                  1 0.66 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.078 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.064 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.15 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.084 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.084 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.031 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.10 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.045 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.034 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.085 UGM./M+3
CORONENE?                 E 0.028 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.076 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.81 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.087 UGM./M+3
DIHYDROXYBENZENES         1 0.13 UGM./M+3
BENZOQUINONE              L 0.016 UGM./M+3

NAPHTHOQUINONE?        EST. 0.0059 UGM./M+3
BENZALDEHYDE (+INTERF )   L 0.061 UGM./M+3
PHENOL                    1 0.10 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.13 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.044 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.064 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.070 UGM./M+3
PENTANDIOIC ACID       EST. 0.86 UGM./M+3

HEXANDIOIC ACID    .        4 1.2 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.89 UGM./M+3
BENZOYL ION (ARBITRARY)       0.66 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.71 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.38 UGM./M+3
CONH FRAGMENT (RELATIVE)     1.6 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.27 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.014 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.075 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0029 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0059 UGM./M+3
CARBAZOLE                 L 0.010 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0044 UGM./M+3

NITRONAPHTHALENE        EST 0.0045 UGM./M+3
PYRIDINE SULFATE        EST 0.0099 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 0.74 UGM./M+3
C8H503 (PHTHALATES)         15. UGM./M+3
C7H1403 ISOMERS         EST 0.10 UGM./M+3
C6H1004 (ADIPIC ACID)   DUP 5.0 UGM./M+3
C7H1203 ISOMERS         EST 0.10 UGM./M+3

C6H1203 ISOMERS         EST 0.14 UGM./M+3
C5H804 (GLUTARIC ACID?) EST 1.6 UGM./M+3
C6H1003 ISOMERS         EST 0.35 UGM./M+3
C7H1202 ISOMERS         EST 0.21 UGM./M+3
C5H1003 ISOMERS         EST 0.20 UGM./M+3

C6H1202 ISOMERS         EST 0.037 UGM./M+3
C5H1002 ISOMERS         EST 0.11 UGM./M+3
HOOC(CH2)5ONO2          EST 0.075 UGM./M+3
HOOC(CH2)4ONO2          EST 0.14 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.037 UGM./M+3
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PAGE 003.
HCO(CH2)5ONO2+ISOMERS    EST 0.059 UGM./M+3
HCO(CH2)4ONO2+ISOMERS    EST 0.067 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.19 UGM./M+3
HCO(CH2)4COONO2+ISOMERS EST 0.059 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.10 UGM./M+3

HCO(CH2)4COONO          EST 0.029 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.1 UGM./M+3
C6H8O2 ISOMERS          EST 0.70 UGM./M+3
C7H10O2 ISOMERS         EST 0.48 UGM./M+3
C5H8O3 ISOMERS          EST 0.059 UGM./M+3
C5H6O4 ISOMERS          EST 0.089 UGM./M+3

C6H8O4 ISOMERS          EST 0.059 UGM./M+3
NITROCRESOLS?             L 0.0074 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.029 UGM./M+3
C10H16O2 ISOMERS        EST 0.022 UGM./M+3
C10H14O3 ISOMERS        EST 0.11 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.029 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.022 UGM./M+3

C9H14O4 (PINIC ACID?)   EST 0.059 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 3.6 UGM./M+3
AMMONIUM CHLORIDE         3 0.53 UGM./M+3
AMMONIUM NITRATE          2 0.56 UGM./M+3
SODIUM NITRATE            1 0.41 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
DDT, DDD                EST 0.011 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.22 UGM./M+3
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WASHINGTON UNIV. 2340 9/06/73 TO 0840 CDT

 SLW19F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0134 TO RUN 0166
DATE 123073, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 108E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.5 UGM./M+3
ALKANES LOW MW            CL 0.025 UGM./M+3
ALKANES MED. MW           CL 0.67 UGM./M+3
ALKANES HI MW             CL 0.64 UGM./M+3
TOTAL ALKENES                1.5 UGM./M+3

ALKENES LOW MW            CL 0.020 UGM./M+3
ALKENES MED. MW           CL 0.54 UGM./M+3
ALKENES HI MW             CL 1.2 UGM./M+3
ALPHA PINENE                 1.5 UGM./M+3
TERPENES AS PINENE        CL 0.62 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.47 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.18 UGM./M+3
ALKYL BENZENES C9H12     CL 2.2 UGM./M+3
ALKYL BENZENES C10H14    CL 0.050 UGM./M+3
BIPHENYL                  1 0.56 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.075 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.038 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.099 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.045 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.037 UGM /M+3
ANTHRACENE-PHENANTHRENE   2 0.025 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.065 UGM /M+3

CHRYSENE, ISOMERS C18H12  L 0.025 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.017 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.073 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.0031 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.069 UGM /M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.36 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.12 UGM./M+3
DIHYDROXYBENZENES         1 0.070 UGM./M+3
BENZOQUINONE              L 0.010 UGM /M+3

NAPHTHOQUINONE?        EST. 0.021 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.033 UGM /M+3
PHENOL                    1 0.071 UGM /M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.074 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.030 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.033 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.013 UGM./M+3
PENTANDIOIC ACID       EST. 0.62 UGM./M+3

HEXANDIOIC ACID            4 0.96 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.55 UGM./M+3
BENZOYL ION (ARBITRARY)      0.36 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.51 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.65 UGM./M+3
CONH FRAGMENT (RELATIVE)    1.4 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.047 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.10 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.092 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0014 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.013 UGM./M+3
CARBAZOLE                 L 0.0083 UGM./M+3
ACRIDINE & ISOMERS        L 0.0051 UGM./M+3

QUINOLINE (-INTERFER?)    L 0.0043 UGM./M+3
NITRONAPHTHALENE        EST 0.0026 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 1.4 UGM./M+3
C8H5O3 (PHTHALATES)         14. UGM./M+3
C7H14O3 ISOMERS         EST 0.057 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 0.42 UGM./M+3
C7H12O3 ISOMERS         EST 0.068 UGM./M+3

C6H12O3 ISOMERS         EST 0.052 UGM./M+3
C5H8O4 (GLUTARIC ACID?) EST 0.52 UGM./M+3
C7H14O2 ISOMERS         EST 0.021 UGM./M+3
C6H10O3 ISOMERS         EST 0.20 UGM./M+3
C7H12O2 ISOMERS         EST 0.026 UGM./M+3

C5H10O3 ISOMERS         EST 0.13 UGM./M+3
C6H12O2 ISOMERS         EST 0.079 UGM./M+3
HOOC(CH2)5ONO2          EST 0.079 UGM./M+3
HOOC(CH2)4ONO2          EST 0.079 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.052 UGM./M+3
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HCO(CH2)5ONO2+ISOMERS   EST 0.031 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.021 UGM./M+3
HOOC(CH2)4COONO2        EST 0.021 UGM./M+3
HCO(CH2)4COONO2+ISOMERS EST 0.026 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.021 UGM./M+3

HCO(CH2)4COONO          EST 0.052 UGM./M+3
HCO(CH2)3COONO          EST 0.063 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.59 UGM./M+3
C6H8O2 ISOMERS          EST 0.46 UGM./M+3
C7H10O2 ISOMERS         EST 0.14 UGM./M+3
C5H8O3 ISOMERS          EST 0.14 UGM./M+3
C5H6O4 ISOMERS          EST 0.026 UGM./M+3

C6H8O4 ISOMERS          EST 0.13 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0015 UGM./M+3
NITROCRESOLS?             L 0.0031 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.068 UGM./M+3
C10H16O2 ISOMERS        EST 0.026 UGM./M+3
C10H14O3 ISOMERS        EST 0.10 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.047 UGM./M+3
C9H14O4 (PINIC ACID?)   EST 0.021 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.7 UGM./M+3
AMMONIUM CHLORIDE         3 1.5 UGM./M+3
AMMONIUM NITRATE          2 1.6 UGM./M+3
SODIUM NITRATE            1 0.24 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.046 UGM./M+3
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WASHINGTON UNIV. 1650 8/19/74 TO 0115 CDT

 SLW62
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0036 TO RUN 0070
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 920E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.39 UGM./M+3
ALKANES LOW MW             CL 0.16 UGM./M+3
ALKANES MED. MW            CL 0.10 UGM./M+3
ALKANES HI MW              CL 0.0034 UGM./M+3
TOTAL ALKENES                 0.40 UGM./M+3

ALKENES LOW MW             CL 0.027 UGM./M+3
ALKENES MED. MW            CL 0.15 UGM./M+3
ALKENES HI MW              CL 0.12 UGM./M+3
ALPHA PINENE                  0.29 UGM./M+3
TERPENES AS PINENE         CL 0.14 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.12 UGM./M+3
XYLENES, ETHYL BENZENE     CL 0.031 UGM./M+3
ALKYL BENZENES C9H12       CL 0.39 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.0071 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.014 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.016 UGM./M+3
DIHYDROXYBENZENES           1 0.017 UGM./M+3
BENZOQUINONE                L 0.0046 UGM./M+3
PHENOL                      1 0.031 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.030 UGM./M+3
METHYL BENZOIC ISOMERS EST  0.0080 UGM./M+3
ETHYL BENZOIC ISOMERS  EST  0.014 UGM./M+3
TRIMETHYL BENZOIC ISOM  EST 0.014 UGM./M+3
PENTANDIOIC ACID       EST  0.71 UGM./M+3

HEXANDIOIC ACID             4 0.96 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.27 UGM./M+3
BENZOYL ION (ARBITRARY)       0.20 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.21 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)      0.69 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.11 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.051 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.010 UGM./M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H503 (PHTHALATES)         2.8 UGM./M+3
C7H1202 ISOMERS         EST 0.43 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS          EST 0.14 UGM./M+3
C6H802 ISOMERS          EST 0.17 UGM./M+3
C7H1002 ISOMERS         EST 0.16 UGM./M+3
C5H803 ISOMERS          EST 0.21 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C8H1204 (NORPINIC ACID?)EST 0.077 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 15. UGM./M+3
AMMONIUM CHLORIDE         3 0.34 UGM./M+3
AMMONIUM NITRATE          2 1.0 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.28 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.26 UGM./M+3
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WASHINGTON UNIV. 0130 8/20/74 TO 0345 CDT

 SLW63
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0176 TO RUN 0210
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0.320E +1 CUBIC METERS, ALIQUOT=0.190E +0
INST. SENSITIVITY=0.230E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

      CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.28 UGM./M+3
ALKANES LOW MW             CL 0.11 UGM./M+3
ALKANES MED  MW            CL 0.081 UGM./M+3
ALKANES HI MW              CL 0.012 UGM./M+3
TOTAL ALKENES                 0.36 UGM./M+3

ALKENES LOW MW             CL 0.015 UGM./M+3
ALKENES MED  MW            CL 0.11 UGM./M+3
ALKENES HI MW              CL 0.053 UGM./M+3
ALPHA PINENE                  0.28 UGM./M+3
TERPENES AS PINENE         CL 0.15 UGM./M+3

XYLENES.MON SUB BENZENES CL 0.15 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.028 UGM./M+3
ALKYL BENZENES C9H12     CL 0.58 UGM./M+3

      CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.013 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.0039 UGM./M+3
PERYLENE, ISOMERS C20H12   L 0.0072 UGM./M+3

      CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.013 UGM./M+3
DIHYDROXYBENZENES           1 0.068 UGM./M+3
PHENOL                      1 0.020 UGM./M+3

      CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.030 UGM./M+3
ETHYL BENZOIC ISOMERS  EST  0.055 UGM./M+3
PENTANDIOIC ACID       EST  0.92 UGM./M+3
HEXANDIOIC ACID             4 0.45 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.23 UGM./M+3

BENZOYL ION (ARBITRARY)       0.23 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.19 UGM./M+3

      CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.15 UGM./M+3
CONH FRAGMENT (RELATIVE)     0.42 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)   0.27 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.010 UGM./M+3
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     CPD. FILE 0056, DATE 082575.  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          8.8 UGM./M+3
C6H12O3 ISOMERS          EST 0.20 UGM./M+3

     CPD. FILE 0057, DATE 082575.  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.57 UGM./M+3
C6H8O2 ISOMERS           EST 0.10 UGM./M+3
C7H10O2 ISOMERS          EST 0.079 UGM./M+3

     CPD. FILE 0058, DATE 082575.  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 14. UGM./M+3
AMMONIUM CHLORIDE          3 0.18 UGM./M+3
AMMONIUM NITRATE           2 0.02 UGM./M+3

     CPD. FILE 0060, DATE 082575.  CHLORINATED COMPOUNDS
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WASHINGTON UNIV. 0400 8/20/74 TO 0730 CDT

 SLW64
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0141 TO RUN 0175
DATE 032075, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0.510E +1 CUBIC METERS, ALIQUOT=0.190E +0
INST. SENSITIVITY=0.230E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.41 UGM./M↑3
ALKANES LOW MW           CL 0.11 UGM./M↑3
ALKANES MED. MW          CL 0.17 UGM./M↑3
ALKANES HI MW            CL 0.031 UGM./M↑3
TOTAL ALKENES               0.49 UGM./M↑3

ALKENES LOW MW           CL 0.068 UGM./M↑3
ALKENES MED. MW          CL 0.22 UGM./M↑3
ALKENES HI MW            CL 0.11 UGM./M↑3
ALPHA PINENE                0.39 UGM./M↑3
TERPENES AS PINENE       CL 0.18 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.12 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.019 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.46 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.010 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.011 UGM./M↑3
METHYL NAPHTHALENES+INT.   L 0.013 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.017 UGM./M↑3
ANTHRACENE-PHENANTHRENE    2 0.0015 UGM./M↑3
PYRENE & ISOMERS C16H10    L 0.013 UGM./M↑3

PERYLENE, ISOMERS C20H12   L 0.051 UGM./M↑3
BENZOPERYLENE+INTERFER.    E 0.042 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.011 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.10 UGM./M↑3
DIHYDROXYBENZENES          1 0.022 UGM./M↑3
BENZALDEHYDE (+INTERF.)    L 0.0058 UGM./M↑3
PHENOL                     1 0.017 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.0090 UGM./M↑3
PENTANDIOIC ACID        EST. 1.0 UGM./M↑3
HEXANDIOIC ACID            4 0.61 UGM./M↑3
METHYLHEXANDIOIC ACID      1 0.49 UGM./M↑3
BENZOYL ION (ARBITRARY)      0.10 UGM./M↑3

ACIDS (AS ACETIC ACID)  EST 0.24 UGM./M↑3
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     CPD. FILE 0055, DATE 002575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.090 UGM /M+3
CONH FRAGMENT (RELATIVE)    0.93 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.045 UGM /M+3
C4H8N2 FRAGMENT (RELATIVE)  0.63 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.00090 UGM./M+3

ACRIDINE & ISOMERS        L 0.0078 UGM./M+3
PYRIDINE SULFATE        EST 0.036 UGM /M+3

     CPD. FILE 0056, DATE 002575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.2 UGM./M+3
C7H12O2 ISOMERS         EST 0.18 UGM./M+3
C5H10O3 ISOMERS         EST 0.26 UGM./M+3

     CPD. FILE 0057, DATE 002575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.18 UGM./M+3
C6H8O2 ISOMERS          EST 0.30 UGM./M+3

     CPD. FILE 0058, DATE 002575,  TENTATIVE TERPENE PRODUCTS
C10H16O2 ISOMERS        EST 0.063 UGM /M+3
C10H14O3 ISOMERS        EST 0.036 UGM /M+3

     CPD. FILE 0059, DATE 002575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 27.  UGM./M+3
AMMONIUM CHLORIDE         3 0.19 UGM./M+3
AMMONIUM NITRATE          2 1.4 UGM./M+3

     CPD. FILE 0060, DATE 002575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.20 UGM./M+3
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WASHINGTON UNIV. 0800 8/20/74 TO 0950 CDT

 SLW 65  2 PUNCHES 0800-0950
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0211 TO RUN 0245
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 200E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.53 UGM./M+3
ALKANES LOW MW           CL 0.18 UGM./M+3
ALKANES MED. MW          CL 0.23 UGM./M+3
TOTAL ALKENES               0.67 UGM./M+3
ALKENES LOW MW           CL 0.085 UGM./M+3

ALKENES MED. MW          CL 0.33 UGM./M+3
ALKENES HI MW            CL 0.14 UGM./M+3
ALPHA PINENE                0.42 UGM./M+3
TERPENES AS PINENE       CL 0.20 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.22 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.010 UGM./M+3
ALKYL BENZENES C9H12     CL 0.52 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.032 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.010 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.016 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.027 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.089 UGM./M+3
DIHYDROXYBENZENES         1 0.032 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.0084 UGM./M+3

PHENOL                    1 0.033 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.013 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.028 UGM./M+3
PENTANDIOIC ACID       EST. 0.58 UGM./M+3
HEXANDIOIC ACID           4 0.30 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.20 UGM./M+3

BENZOYL ION (ARBITRARY)     0.11 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.35 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.29 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.11 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.039 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.013 UGM./M+3
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PAGE 002.

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.4 UGM./M↑3
C7H12O2 ISOMERS         EST 0.15 UGM./M↑3
C5H10O3 ISOMERS         EST 0.30 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.27 UGM./M↑3
C6H8O2 ISOMERS          EST 0.16 UGM./M↑3
C7H10O2 ISOMERS         EST 0.31 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 19.  UGM./M↑3
AMMONIUM CHLORIDE         3 0.28 UGM./M↑3
AMMONIUM NITRATE          2 0.77 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.97 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.15 UGM./M↑3
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WASHINGTON UNIV. 1000 8/20/74 TO 1230 CDT

 SLW 66
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0246 TO RUN 0280
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 360E +1 CUBIC METERS, ALIQUOT=0. 150E +0
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 0.33 UGM./M↑3
ALKANES LOW MW            CL 0.11 UGM./M↑3
ALKANES MED. MW           CL 0.11 UGM./M↑3
ALKANES HI MW             CL 0.019 UGM./M↑3
TOTAL ALKENES                0.48 UGM./M↑3

ALKENES LOW MW            CL 0.034 UGM./M↑3
ALKENES MED. MW           CL 0.18 UGM./M↑3
ALKENES HI MW             CL 0.12 UGM./M↑3
ALPHA PINENE                 0.13 UGM./M↑3
TERPENES AS PINENE        CL 0.18 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.16 UGM./M↑3
XYLENES, ETHYL BENZENE    CL 0.014 UGM./M↑3
ALKYL BENZENES C9H12      CL 0.44 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.0076 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.018 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.041 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.067 UGM./M↑3
DIHYDROXYBENZENES           1 0.085 UGM./M↑3
PHENOL                      1 0.058 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
PENTANDIOIC ACID        EST  1.3 UGM./M↑3
HEXANDIOIC ACID             4 1.6 UGM./M↑3
METHYLHEXANDIOIC ACID     1 0.59 UGM./M↑3
BENZOYL ION (ARBITRARY)      0.11 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.36 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.97 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.017 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.032 UGM./M↑3
PYRIDINE SULFATE        EST 0.051 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.3 UGM./M↑3
C6H10O3 ISOMERS         EST 0.070 UGM./M↑3
C7H12O2 ISOMERS         EST 0.083 UGM./M↑3
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PAGE 002.
C5H10O3 ISOMERS          EST 0.32 UGM./M+3
HOOC(CH2)4ONO2           EST 0.070 UGM./M+3
HCO(CH2)4ONO2+ISOMERS    EST 0.47 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.71 UGM./M+3
C6H8O2 ISOMERS           EST 0.48 UGM./M+3
C7H10O2 ISOMERS          EST 0.17 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 22. UGM./M+3
AMMONIUM CHLORIDE         3 0.15 UGM./M+3
AMMONIUM NITRATE          2 0.70 UGM./M+3
SODIUM NITRATE            1 0.10 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)     EST 0.24 UGM./M+3
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WASHINGTON UNIV. 1240 8/20/74 TO 1430 CDT

 SLW 67
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0281 TO RUN 0315
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 210E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.38 UGM./M+3
ALKANES LOW MW             CL 0.16 UGM./M+3
ALKANES MED. MW            CL 0.038 UGM./M+3
TOTAL ALKENES                 0.40 UGM./M+3
ALKENES LOW MW             CL 0.069 UGM./M+3

ALKENES MED. MW            CL 0.18 UGM./M+3
ALKENES HI MW              CL 0.087 UGM./M+3
ALPHA PINENE                  0.19 UGM./M+3
TERPENES AS PINENE         CL 0.13 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.16 UGM./M+3

ALKYL BENZENES C9H12       CL 0.24 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.017 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.084 UGM./M+3
DIHYDROXYBENZENES          1 0.091 UGM./M+3
PHENOL                     1 0.016 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.028 UGM./M+3
PENTANDIOIC ACID        EST  0.26 UGM./M+3
HEXANDIOIC ACID            4 1.5 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.39 UGM./M+3
BENZOYL ION (ARBITRARY)      0.087 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.25 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.40 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.33 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  1.1 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0088 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.037 UGM./M+3

PYRIDINE SULFATE        EST 0.14 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.3 UGM./M+3
HOOC(CH2)4ONO2          EST 0.25 UGM./M+3
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PAGE 002.
HCO(CH2)4ONO2+ISOMERS   EST 0.087 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.76 UGM./M+3
C6H8O2 ISOMERS          EST 0.30 UGM./M+3
C7H10O2 ISOMERS         EST 0.29 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 14. UGM./M+3
AMMONIUM CHLORIDE         3 0.21 UGM./M+3
AMMONIUM NITRATE          2 0.63 UGM./M+3
SODIUM NITRATE            1 0.039 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 1.2 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.51 UGM./M+3
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WASHINGTON UNIV. 1445 8/20/74 TO 1900 CDT

 SLW 68    4.3 HRS   BBA
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0351 TO RUN 0385
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0.610E +1 CUBIC METERS, ALIQUOT=0.190E +0
INST. SENSITIVITY=0.230E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

      CPD. FILE 0051, DATE 082575, HYDROCARBONS
TOTAL ALKANES               CL 0.18 UGM./M↑3
ALKANES LOW MW              CL 0.078 UGM./M↑3
ALKANES MED. MW             CL 0.086 UGM./M↑3
ALKANES HI MW               CL 0.016 UGM./M↑3
TOTAL ALKENES                  0.26 UGM./M↑3

ALKENES LOW MW              CL 0.012 UGM./M↑3
ALKENES MED. MW             CL 0.15 UGM./M↑3
ALKENES HI MW               CL 0.057 UGM./M↑3
ALPHA PINENE                   0.049 UGM./M↑3
TERPENES AS PINENE          CL 0.087 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.056 UGM./M↑3
ALKYL BENZENES C9H12        CL 0.21 UGM./M↑3

      CPD. FILE 0052, DATE 082575, POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.0099 UGM./M↑3

      CPD. FILE 0053, DATE 082575, AROMATIC OXYGENATED CPDS
DIHYDROXYBENZENES            1 0.041 UGM./M↑3
PHENOL                       1 0.0060 UGM./M↑3

      CPD. FILE 0054, DATE 082575, CARBOXYLIC ACIDS
PENTANDIOIC ACID        EST 0.76 UGM./M↑3
HEXANDIOIC ACID              4 1.0 UGM./M↑3
METHYLHEXANDIOIC ACID        1 0.16 UGM./M↑3
BENZOYL ION (ARBITRARY)        0.066 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.17 UGM./M↑3

      CPD. FILE 0055, DATE 082575, NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)       0.13 UGM./M↑3
PYRIDINE + PYRIDYL CPDS.    CL 0.052 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.0093 UGM./M↑3
CARBAZOLE                   CL 0.0041 UGM./M↑3

      CPD. FILE 0056, DATE 082575, POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)            1.0 UGM./M↑3
C7H12O2 ISOMERS         EST 0.20 UGM./M↑3

      CPD. FILE 0057, DATE 082575, TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.74 UGM./M↑3
C6H8O2 ISOMERS          EST 0.11 UGM./M↑3
C7H10O2 ISOMERS         EST 0.090 UGM./M↑3
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PAGE 002.

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 19. UGM./M↑3
AMMONIUM CHLORIDE         3 0.069 UGM /M↑3
AMMONIUM NITRATE          2 0.46 UGM./M↑3
SODIUM NITRATE            1 0.0074 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.48 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.35 UGM./M↑3
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WASHINGTON UNIV. 1910 8/20/74 TO 2215 CDT

 SLW 69    3.1 HRS   BBA
FILE NO. 0002, FIT TOL .003 (MILLIMASS) RUN 0316 TO RUN 0350
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0.440E +1 CUBIC METERS, ALIQUOT=0.190E +0
INST. SENSITIVITY=0.230E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD FILE 0051, DATE 082575, HYDROCARBONS
TOTAL ALKANES               CL 0.38 UGM/M+3
ALKANES LOW MW              CL 0.10 UGM/M+3
ALKANES MED. MW             CL 0.14 UGM/M+3
ALKANES HI MW               CL 0.0086 UGM/M+3
TOTAL ALKENES                  0.49 UGM/M+3

ALKENES LOW MW              CL 0.056 UGM/M+3
ALKENES MED. MW             CL 0.20 UGM/M+3
ALKENES HI MW               CL 0.11 UGM/M+3
ALPHA PINENE                   0.37 UGM/M+3
TERPENES AS PINENE          CL 0.18 UGM/M+3

XYLENES/MON SUB BENZENES CL 0.18 UGM/M+3
XYLENES, ETHYL BENZENE   CL 0.016 UGM/M+3
ALKYL BENZENES C9H12     CL 0.48 UGM/M+3
ALKYL BENZENES C10H14    CL 0.016 UGM/M+3

     CPD FILE 0052, DATE 082575, POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.015 UGM/M+3
METHYL NAPHTHALENES+INT    CL 0.0076 UGM/M+3
ALKYL NAPHTHALENES C12H12 CL 0.010 UGM/M+3
PYRENE + ISOMERS C16H10    CL 0.0040 UGM/M+3

     CPD FILE 0053, DATE 082575, AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.036 UGM/M+3
PHENOL+NO2(HO)CO2H?    EST 0.013 UGM/M+3
TRIMETHYLPHENOL+ISOMERS EST 0.12 UGM/M+3
DIHYDROXYBENZENES           1 0.059 UGM/M+3
PHENOL                      1 0.021 UGM/M+3

     CPD FILE 0054, DATE 082575, CARBOXYLIC ACIDS
BENZOIC ACID                2 0.017 UGM/M+3
METHYL BENZOIC ISOMERS EST  0.022 UGM/M+3
ETHYL BENZOIC ISOMERS  EST  0.024 UGM/M+3
PENTANDIOIC ACID       EST  1.1 UGM/M+3
HEXANDIOIC ACID             4 1.0 UGM/M+3

METHYLHEXANDIOIC ACID       1 0.68 UGM/M+3
BENZOYL ION (ARBITRARY)       0.12 UGM/M+3
ACIDS (AS ACETIC ACID)  EST 0.23 UGM/M+3

     CPD FILE 0055, DATE 082575, NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)     0.30 UGM/M+3
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PAGE 002.
CONH FRAGMENT (RELATIVE)     0.6 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.078 UGM /M↑3
PIPERIDINES (+ISOMERS)  EST 0.12 UGM./M↑3
QUINOLINE (-INTERFER?)     L 0.0069 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          1.2 UGM./M↑3
C7H12O2 ISOMERS          EST 0.18 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS    EST 0.25 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.49 UGM./M↑3
C6H8O2 ISOMERS           EST 0.44 UGM./M↑3
C7H10O2 ISOMERS          EST 0.18 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS          EST 0.14 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 16. UGM./M↑3
AMMONIUM CHLORIDE          3 0.10 UGM./M↑3
AMMONIUM NITRATE           2 0.64 UGM./M↑3
SODIUM NITRATE             1 0.016 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                  EST 0.23 UGM./M↑3
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WASHINGTON UNIV. 2225 8/20/74-0200 8/21 CDT

 SLW 70    3.6HRS
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0386 TO RUN 0420
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 430E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.37 UGM./M↑3
ALKANES LOW MW              CL 0.10 UGM./M↑3
ALKANES MED. MW             CL 0.19 UGM./M↑3
ALKANES HI MW               CL 0.01[illegible] UGM./M↑3
TOTAL ALKENES                  0.48 UGM./M↑3

ALKENES LOW MW              CL 0.033 UGM./M↑3
ALKENES MED. MW             CL 0.24 UGM./M↑3
ALKENES HI MW               CL 0.12 UGM./M↑3
ALPHA PINENE                   0.48 UGM./M↑3
TERPENES AS PINENE          CL 0.17 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.16 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.016 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.65 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.019 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.015 UGM./M↑3
ANTHRACENE-PHENANTHRENE     2 0.0025 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.024 UGM./M↑3
PHENOL+NO2,CHO,CO2H?    EST. 0.083 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.019 UGM./M↑3
DIHYDROXYBENZENES           1 0.0063 UGM./M↑3
BENZALDEHYDE (+INTERF.)     L 0.0075 UGM./M↑3

PHENOL                      1 0.013 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.024 UGM./M↑3
METHYL BENZOIC ISOMERS EST  0.013 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.039 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.018 UGM./M↑3
PENTANDIOIC ACID       EST. 1.0 UGM./M↑3

METHYLHEXANDIOIC ACID     1 0.73 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.12 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.41 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.085 UGM./M↑3
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CONH FRAGMENT (RELATIVE)    0.45 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.0035 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.12 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0047 UGM./M↑3
PYRIDINE SULFATE        EST 0.039 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         5.3 UGM./M↑3
C7H12O3 ISOMERS         EST 0.17 UGM./M↑3
C7H12O2 ISOMERS         EST 0.33 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.053 UGM./M↑3
C6H8O2 ISOMERS          EST 0.17 UGM./M↑3
C7H10O2 ISOMERS         EST 0.042 UGM./M↑3
C5H8O3 ISOMERS          EST 0.075 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 11. UGM./M↑3
AMMONIUM CHLORIDE         3 0.28 UGM./M↑3
AMMONIUM NITRATE          2 1.2 UGM./M↑3
SODIUM NITRATE            1 0.049 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.45 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.23 UGM./M↑3
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WASHINGTON UNIV. 0210 8/21/74 TO 0745 CDT

 SLW 71    5.6 HRS
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0421 TO RUN 0455
DATE 032075, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 820E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575.  HYDROCARBONS
TOTAL ALKANES               CL 0.57 UGM./M↑3
ALKANES LOW MW              CL 0.078 UGM./M↑3
ALKANES MED. MW             CL 0.30 UGM./M↑3
ALKANES HI MW               CL 0.010 UGM./M↑3
TOTAL ALKENES                  0.82 UGM./M↑3

ALKENES LOW MW              CL 0.032 UGM./M↑3
ALKENES MED. MW             CL 0.38 UGM./M↑3
ALKENES HI MW               CL 0.15 UGM./M↑3
ALPHA PINENE                   0.74 UGM./M↑3
TERPENES AS PINENE          CL 0.25 UGM./M↑3

XYLENES.MON SUB BENZENES CL 0.21 UGM./M↑3
XYLENES. ETHYL BENZENE   CL 0.057 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.89 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.038 UGM./M↑3
DIPHENYL METHANE+ISOMERS CL 0.010 UGM./M↑3

     CPD. FILE 0052. DATE 082575.  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.027 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.017 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0027 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.084 UGM./M↑3
CHRYSENE. ISOMERS C18H12  L 0.097 UGM./M↑3

PERYLENE. ISOMERS C20H12  L 0.12 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.075 UGM./M↑3

     CPD. FILE 0053. DATE 082575.  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.039 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.11 UGM./M↑3
DIHYDROXYBENZENES           1 0.064 UGM./M↑3
PHENOL                      1 0.037 UGM./M↑3

     CPD. FILE 0054. DATE 082575.  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.026 UGM./M↑3
PENTANDIOIC ACID        EST  1.5 UGM./M↑3
HEXANDIOIC ACID             4 1.7 UGM./M↑3
METHYLHEXANDIOIC ACID       1 0.76 UGM./M↑3
BENZOYL ION (ARBITRARY)       0.14 UGM./M↑3

ACIDS (AS ACETIC ACID)  EST 0.29 UGM./M↑3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.65 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.53 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.028 UGM /M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.046 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.010 UGM /M↑3

PIPERIDINES (+ISOMERS)  EST 0.056 UGM /M↑3
CARBAZOLE                 L 0.0038 UGM./M↑3
ACRIDINE & ISOMERS        L 0.0093 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.012 UGM /M↑3
PYRIDINE SULFATE        EST 0.045 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.2 UGM./M↑3
C6H12O3 ISOMERS         EST 0.45 UGM./M↑3
C7H12O2 ISOMERS         EST 0.48 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.15 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.54 UGM./M↑3
C6H8O2 ISOMERS          EST 0.27 UGM./M↑3
C7H10O2 ISOMERS         EST 0.29 UGM./M↑3
C5H8O3 ISOMERS          EST 0.051 UGM /M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 34. UGM./M↑3
AMMONIUM CHLORIDE         3 0.17 UGM./M↑3
AMMONIUM NITRATE          2 1.3 UGM./M↑3
SODIUM NITRATE            1 0.012 UGM /M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.70 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.26 UGM./M↑3
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HOLIDAY INN 1600 9/5/73 TO 2300 9/5/73 CDT

 SLH8F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0035 TO RUN 0065
DATE 122973, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0.798E +1 CUBIC METERS, ALIQUOT=0.100E +0
INST. SENSITIVITY=0.177E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 1.5 UGM./M↑3
ALKANES LOW MW              CL 0.14 UGM./M↑3
ALKANES MED. MW             CL 0.93 UGM./M↑3
ALKANES HI MW               CL 0.21 UGM./M↑3
TOTAL ALKENES                  1.8 UGM./M↑3

ALKENES LOW MW              CL 0.083 UGM./M↑3
ALKENES MED. MW             CL 0.99 UGM./M↑3
ALKENES HI MW               CL 0.72 UGM./M↑3
ALPHA PINENE                   1.6 UGM./M↑3
TERPENES AS PINENE          CL 0.73 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.61 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.11 UGM./M↑3
ALKYL BENZENES C9H12     CL 2.6 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.34 UGM./M↑3
BIPHENYL                  1 0.34 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.0054 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.035 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.11 UGM./M↑3
METHYL NAPHTHALENES+INT   L 0.077 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.076 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.027 UGM./M↑3
CHRYSENE, ISOMERS C18H12  L 0.026 UGM./M↑3

PERYLENE, ISOMERS C20H12  L 0.0057 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.030 UGM./M↑3
CORONENE?                 E 0.0071 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.078 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST 0.24 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.10 UGM./M↑3
DIHYDROXYBENZENES         1 0.11 UGM./M↑3
BENZOQUINONE              L 0.025 UGM./M↑3

NAPHTHOQUINONE?        EST 0.011 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.078 UGM./M↑3
PHENOL                    1 0.10 UGM./M↑3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.071 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.076 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.060 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.042 UGM./M+3
PENTANDIOIC ACID       EST. 1.4 UGM./M+3

HEXANDIOIC ACID              4 1.5 UGM./M+3
METHYLHEXANDIOIC ACID        1 1.0 UGM./M+3
BENZOYL ION (ARBITRARY)        0.57 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.80 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.73 UGM./M+3
CONH FRAGMENT (RELATIVE)    1.9 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.26 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.30 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.035 UGM./M+3

PYRIDINE + PYRIDYL CPDS   L 0.0083 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.021 UGM./M+3
CARBAZOLE                 L 0.012 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0026 UGM./M+3
NITRONAPHTHALENE        EST 0.0021 UGM./M+3

PYRIDINE SULFATE        EST 0.038 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.71 UGM./M+3
C8H5O3 (PHTHALATES)         4.1 UGM./M+3
C7H14O3 ISOMERS         EST 0.16 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 1.2 UGM./M+3
C7H12O3 ISOMERS         EST 0.22 UGM./M+3

C6H12O3 ISOMERS         EST 0.096 UGM./M+3
C5H8O4 (GLUTARIC ACID?) EST 2.7 UGM./M+3
C7H14O2 ISOMERS         EST 0.028 UGM./M+3
C6H10O3 ISOMERS         EST 0.36 UGM./M+3
C7H12O2 ISOMERS         EST 0.56 UGM./M+3

C5H10O3 ISOMERS         EST 0.13 UGM./M+3
C4H6O4 (SUCCINIC ACID?) EST 0.85 UGM./M+3
C6H12O2 ISOMERS         EST 0.10 UGM./M+3
C5H10O2 ISOMERS         EST 0.34 UGM./M+3
HOOC(CH2)5ONO2          EST 0.078 UGM./M+3

HOOC(CH2)4ONO2          EST 0.028 UGM./M+3
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PAGE 003.
HCO(CH2)6ONO2+ISOMERS   EST 0.042 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.021 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.078 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.042 UGM./M↑3
HCO(CH2)3COONO2+ISOMERS EST 0.021 UGM./M↑3

     CPD. FILE 0057, DATE 082575.  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.99 UGM./M↑3
C6H8O2 ISOMERS          EST 0.63 UGM./M↑3
C7H10O2 ISOMERS         EST 0.35 UGM./M↑3
C5H8O3 ISOMERS          EST 0.34 UGM./M↑3
C5H6O4 ISOMERS          EST 0.028 UGM./M↑3

C6H8O4 ISOMERS          EST 0.028 UGM./M↑3
NITROCRESOLS?             L 0.0028 UGM./M↑3

     CPD. FILE 0058, DATE 082575.  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.14 UGM./M↑3
C10H14O3 ISOMERS        EST 0.035 UGM./M↑3
C10H16O3 (PINONIC ACID?)EST 0.19 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.028 UGM./M↑3
C9H14O4 (PINIC ACID?)   EST 0.035 UGM./M↑3

     CPD. FILE 0059, DATE 082575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 9.3 UGM./M↑3
AMMONIUM CHLORIDE         3 0.75 UGM./M↑3
AMMONIUM NITRATE          2 1.7 UGM./M↑3
SODIUM NITRATE            1 0.12 UGM./M↑3

     CPD. FILE 0060, DATE 082575.  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.13 UGM./M↑3
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HOLIDAY INN 2310 9/5/73 TO 0640 9/6/73 CDT

 SLH9F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0033
DATE 122973, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 845E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 264E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.51 UGM./M+3
ALKANES LOW MW           CL 0.10 UGM./M+3
ALKANES MED. MW          CL 0.20 UGM./M+3
ALKANES HI MW            CL 0.089 UGM./M+3
TOTAL ALKENES               0.56 UGM./M+3

ALKENES LOW MW           CL 0.046 UGM./M+3
ALKENES MED. MW          CL 0.19 UGM./M+3
ALKENES HI MW            CL 0.21 UGM./M+3
ALPHA PINENE                0.58 UGM./M+3
TERPENES AS PINENE       CL 0.29 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.32 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.12 UGM./M+3
ALKYL BENZENES C9H12     CL 0.94 UGM./M+3
ALKYL BENZENES C10H14    CL 0.086 UGM./M+3
BIPHENYL                  1 0.82 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0020 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.013 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.095 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.038 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.017 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0099 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.029 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.048 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.22 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.036 UGM./M+3
DIHYDROXYBENZENES         1 0.075 UGM./M+3
BENZOQUINONE              L 0.020 UGM./M+3

BENZALDEHYDE (+INTERF.)   L 0.010 UGM./M+3
PHENOL                    1 0.060 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.048 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.0038 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.0051 UGM./M+3
PENTANDIOIC ACID       EST. 0.71 UGM./M+3
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PAGE 002
HEXANDIOIC ACID             4 0.57 UGM./M+3
METHYLHEXANDIOIC ACID       1 0.18 UGM./M+3
BENZOYL ION (ARBITRARY)       0.17 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.51 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.58 UGM./M+3
CONH FRAGMENT (RELATIVE)    1.6 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.0090 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.036 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.13 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.011 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.014 UGM./M+3
CARBAZOLE                 L 0.0037 UGM./M+3
ACRIDINE & ISOMERS        L 0.010 UGM./M+3

PIPERAZINE?             EST 0.0031 UGM./M+3
PYRIDINE SULFATE        EST 0.0090 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.36 UGM./M+3
C8H5O3 (PHTHALATES)         1.5 UGM./M+3
C7H14O3 ISOMERS         EST 0.049 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 1.7 UGM./M+3
C7H12O3 ISOMERS         EST 0.13 UGM./M+3

C6H12O3 ISOMERS         EST 0.040 UGM./M+3
C5H8O4 (GLUTARIC ACID?) EST 1.9 UGM./M+3
C7H14O2 ISOMERS         EST 0.018 UGM./M+3
C6H10O3 ISOMERS         EST 0.17 UGM./M+3
C7H12O2 ISOMERS         EST 0.063 UGM./M+3

C5H10O3 ISOMERS         EST 0.099 UGM./M+3
C5H10O2 ISOMERS         EST 0.081 UGM./M+3
HOOC(CH2)5ONO2          EST 0.018 UGM./M+3
HOOC(CH2)4ONO2          EST 0.031 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.027 UGM./M+3

HCO(CH2)5ONO2+ISOMERS   EST 0.072 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.054 UGM./M+3
HOOC(CH2)3COONO2        EST 0.013 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.067 UGM./M+3
HCO(CH2)4COONO2+ISOMERS EST 0.067 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.63 UGM./M+3
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PAGE 003.
C6H8O2 ISOMERS          EST 0.24 UGM./M+3
C7H10O2 ISOMERS         EST 0.11 UGM./M+3
C5H8O3 ISOMERS          EST 0.24 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.031 UGM./M+3
C10H16O2 ISOMERS        EST 0.11 UGM./M+3
C10H14O3 ISOMERS        EST 0.049 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.018 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.1 UGM./M+3
AMMONIUM CHLORIDE         3 1.1 UGM./M+3
AMMONIUM NITRATE          2 0.80 UGM./M+3
SODIUM NITRATE            1 0.13 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.036 UGM./M+3
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HOLIDAY INN 0650 9/6/73 TO 1130 9/6/73 CDT

 SLH10F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0030
DATE 122873, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 532E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 375E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.3 UGM./M↑3
ALKANES LOW MW            CL 0.11 UGM./M↑3
ALKANES MED. MW           CL 0.54 UGM./M↑3
ALKANES HI MW             CL 0.43 UGM./M↑3
TOTAL ALKENES                1.4 UGM./M↑3

ALKENES LOW MW            CL 0.056 UGM./M↑3
ALKENES MED. MW           CL 0.46 UGM./M↑3
ALKENES HI MW             CL 0.83 UGM./M↑3
ALPHA PINENE                 1.5 UGM./M↑3
TERPENES AS PINENE        CL 0.66 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.62 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.18 UGM./M↑3
ALKYL BENZENES C9H12     CL 2.2 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.14 UGM./M↑3
BIPHENYL                  1 0.27 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.067 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.059 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.10 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.060 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.025 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.023 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.029 UGM./M↑3

CHRYSENE, ISOMERS C18H12  L 0.0071 UGM./M↑3
PERYLENE, ISOMERS C20H12  L 0.014 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.016 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.056 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.25 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.074 UGM./M↑3
DIHYDROXYBENZENES         1 0.10 UGM./M↑3
BENZOQUINONE              L 0.022 UGM./M↑3

NAPHTHOQUINONE?        EST. 0.0050 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.015 UGM./M↑3
PHENOL                    1 0.074 UGM./M↑3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.079 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.076 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.012 UGM./M+3
PENTANDIOIC ACID        EST. 1.0 UGM./M+3
HEXANDIOIC ACID            4 1.7 UGM./M+3

METHYLHEXANDIOIC ACID      1 0.52 UGM./M+3
BENZOYL ION (ARBITRARY)      0.34 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.51 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.79 UGM./M+3
CONH FRAGMENT (RELATIVE)     2.3 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.096 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.22 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0043 UGM./M+3

CARBAZOLE                 L 0.015 UGM./M+3
NITRONAPHTHALENE        EST 0.0030 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 2.2 UGM./M+3
C8H5O3 (PHTHALATES)         3.1 UGM./M+3
C7H14O3 ISOMERS         EST 0.091 UGM./M+3
C7H12O3 ISOMERS         EST 0.44 UGM./M+3
C6H12O3 ISOMERS         EST 0.37 UGM./M+3

C5H8O4 (GLUTARIC ACID?) EST 2.1 UGM./M+3
C7H12O2 ISOMERS         EST 0.080 UGM./M+3
C5H10O3 ISOMERS         EST 0.11 UGM./M+3
C5H10O2 ISOMERS         EST 0.15 UGM./M+3
HOOC(CH2)5ONO2          EST 0.045 UGM./M+3

HOOC(CH2)4ONO2          EST 0.36 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.035 UGM./M+3
HCO(CH2)4COONO          EST 0.091 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.88 UGM./M+3
C6H8O2 ISOMERS          EST 0.12 UGM./M+3
C7H10O2 ISOMERS         EST 0.075 UGM./M+3
C5H8O3 ISOMERS          EST 0.27 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.070 UGM./M+3
C10H14O3 ISOMERS        EST 0.065 UGM./M+3
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PAGE 003.
C8H12O4 (NORPINIC ACID?)EST 0.055 UGM /M+3
C9H14O4 (PINIC ACID?)   EST 0.055 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 20. UGM./M+3
AMMONIUM CHLORIDE         3 1.7 UGM./M+3
AMMONIUM NITRATE          2 1.8 UGM./M+3
SODIUM NITRATE            1 0.24 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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HOLIDAY INN 1145 9/6/73 TO 1545 9/6/73 CDT

 SLH11F 1-32
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0032
DATE 122873, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 401E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 375E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.1 UGM./M+3
ALKANES LOW MW            CL 0.20 UGM./M+3
ALKANES MED. MW           CL 0.36 UGM./M+3
ALKANES HI MW             CL 0.18 UGM./M+3
TOTAL ALKENES                1.1 UGM./M+3

ALKENES LOW MW            CL 0.10 UGM./M+3
ALKENES MED. MW           CL 0.40 UGM./M+3
ALKENES HI MW             CL 0.33 UGM./M+3
ALPHA PINENE                 . 0 UGM./M+3
TERPENES AS PINENE        CL 0.67 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.55 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.13 UGM./M+3
ALKYL BENZENES C9H12     CL 1.5 UGM./M+3
ALKYL BENZENES C10H14    CL 0.19 UGM./M+3
BIPHENYL                  1 0.41 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.057 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.13 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.071 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.014 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.021 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.0066 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.015 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.0073 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.0055 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.010 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.070 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.34 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.28 UGM./M+3
DIHYDROXYBENZENES         1 0.081 UGM./M+3
NAPHTHOQUINONE?        EST. 0.012 UGM./M+3

BENZALDEHYDE (+INTERF.)   L 0.037 UGM./M+3
PHENOL                    1 0.12 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.098 UGM /M+3
METHYL BENZOIC ISOMERS EST. 0.066 UGM /M+3
ETHYL BENZOIC ISOMERS  EST. 0.028 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.038 UGM./M+3
PENTANDIOIC ACID       EST. 1.3 UGM./M+3

HEXANDIOIC ACID           4 1.3 UGM./M+3
METHYLHEXANDIOIC ACID     1 1.0 UGM./M+3
BENZOYL ION (ARBITRARY)     0.27 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.60 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.99 UGM./M+3
CONH FRAGMENT (RELATIVE)    2.2 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.16 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.030 UGM /M+3
C4H8N2 FRAGMENT (RELATIVE)  0.080 UGM /M+3

C4H9N2 FRAGMENT (RELATIVE)  0.093 UGM /M+3
PYRIDINE + PYRIDYL CPDS   L 0.021 UGM /M+3
PIPERIDINES (+ISOMERS)  EST 0.036 UGM /M+3
CARBAZOLE                 L 0.011 UGM /M+3
ACRIDINE & ISOMERS        L 0.0065 UGM./M+3

NITRONAPHTHALENE        EST 0.0016 UGM /M+3
PYRIDINE SULFATE        EST 0.026 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         5.7 UGM./M+3
C7H14O3 ISOMERS         EST 0.19 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 2.2 UGM./M+3
C7H12O3 ISOMERS         EST 0.080 UGM./M+3
C6H12O3 ISOMERS         EST 0.040 UGM /M+3

C5H8O4 (GLUTARIC ACID?) EST 1.9 UGM./M+3
C7H14O2 ISOMERS         EST 0.13 UGM./M+3
C6H10O3 ISOMERS         EST 0.50 UGM./M+3
C7H12O2 ISOMERS         EST 0.23 UGM./M+3
C5H10O3 ISOMERS         EST 0.88 UGM./M+3

C5H10O2 ISOMERS         EST 0.66 UGM./M+3
HOOC(CH2)4ONO2          EST 0.15 UGM./M+3
HCO(CH2)6ONO2+ISOMERS   EST 0.067 UGM./M+3
HCO(CH2)5ONO2+ISOMERS   EST 0.20 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.087 UGM./M+3
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PAGE 003.
HCO(CH2)5COONO2+ISOMERS EST 0.14 UGM./M+3
HCO(CH2)3COONO2+ISOMERS EST 0.073 UGM./M+3
HCO(CH2)4COONO          EST 0.033 UGM./M+3
HCO(CH2)3COONO          EST 0.080 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.68 UGM./M+3
C6H8O2 ISOMERS          EST 0.67 UGM./M+3
C7H10O2 ISOMERS         EST 0.093 UGM./M+3
C5H8O3 ISOMERS          EST 0.46 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0073 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H16O2 ISOMERS        EST 0.14 UGM./M+3
C10H14O3 ISOMERS        EST 0.033 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.040 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.046 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 6.0 UGM./M+3
AMMONIUM CHLORIDE         3 0.64 UGM./M+3
AMMONIUM NITRATE          2 0.67 UGM./M+3
SODIUM NITRATE            1 0.41 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.15 UGM./M+3
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HOLIDAY INN 1550 9/6/73 TO 2230 9/6/73 CDT

 SLH12F 1-30
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0030
DATE 122873, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0.720E +1 CUBIC METERS, ALIQUOT=0.100E +0
INST. SENSITIVITY=0.375E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 1.0 UGM./M+3
ALKANES LOW MW             CL 0.12 UGM./M+3
ALKANES MED. MW            CL 0.47 UGM./M+3
ALKANES HI MW              CL 0.28 UGM./M+3
TOTAL ALKENES                 1.4 UGM./M+3

ALKENES LOW MW             CL 0.044 UGM./M+3
ALKENES MED  MW            CL 0.59 UGM./M+3
ALKENES HI MW              CL 0.60 UGM./M+3
ALPHA PINENE                  1.2 UGM./M+3
TERPENES AS PINENE         CL 0.59 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.54 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.13 UGM./M+3
ALKYL BENZENES C9H12     CL 1.7 UGM./M+3
ALKYL BENZENES C10H14    CL 0.17 UGM./M+3
BIPHENYL                  1 0.13 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.034 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.014 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.085 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.025 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.014 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.012 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.034 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.019 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.0067 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.0031 UGM./M+3
CORONENE?                 E 0.0044 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.050 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.29 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.099 UGM./M+3
DIHYDROXYBENZENES         1 0.11 UGM./M+3
BENZOQUINONE              L 0.0047 UGM./M+3

BENZALDEHYDE (+INTERF.)   L 0.026 UGM./M+3
PHENOL                    1 0.10 UGM./M+3
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PAGE 002.

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.068 UGM /M↑3
METHYL BENZOIC ISOMERS EST. 0.023 UGM /M↑3
ETHYL BENZOIC ISOMERS  EST. 0.023 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.0085 UGM./M↑3
PENTANDIOIC ACID       EST. 1.1 UGM./M↑3

HEXANDIOIC ACID           4 1.9 UGM./M↑3
METHYLHEXANDIOIC ACID     1 0.75 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.26 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.85 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   1.1 UGM./M↑3
CONH FRAGMENT (RELATIVE)    2.7 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.18 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.028 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.018 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.10 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.0022 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.036 UGM /M↑3
CARBAZOLE                 L 0.014 UGM./M↑3
ACRIDINE & ISOMERS        L 0.0032 UGM./M↑3

QUINOLINE (-INTERFER?)    L 0.0030 UGM./M↑3
PIPERAZINE?             EST 0.0018 UGM./M↑3
NITRONAPHTHALENE        EST 0.0014 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.74 UGM./M↑3
C8H5O3 (PHTHALATES)         4.1 UGM./M↑3
C7H14O3 ISOMERS         EST 0.087 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 0.85 UGM./M↑3
C7H12O3 ISOMERS         EST 0.085 UGM./M↑3

C6H12O3 ISOMERS         EST 0.23 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 0.37 UGM./M↑3
C7H14O2 ISOMERS         EST 0.089 UGM./M↑3
C6H10O3 ISOMERS         EST 0.063 UGM./M↑3
C7H12O2 ISOMERS         EST 0.10 UGM./M↑3

C5H10O3 ISOMERS         EST 0.26 UGM./M↑3
C4H6O4 (SUCCINIC ACID?) EST 0.59 UGM./M↑3
C6H12O2 ISOMERS         EST 0.12 UGM./M↑3
C5H10O2 ISOMERS         EST 0.29 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.13 UGM./M↑3
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PAGE 003.
HOOC(CH2)4ONO2          EST 0.059 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.074 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.044 UGM./M↑3
HOOC(CH2)4COONO2        EST 0.018 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.14 UGM./M↑3

HCO(CH2)3COONO2+ISOMERS EST 0.044 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.93 UGM./M↑3
C6H8O2 ISOMERS          EST 0.82 UGM./M↑3
C7H10O2 ISOMERS         EST 0.19 UGM./M↑3
C5H8O3 ISOMERS          EST 0.46 UGM./M↑3
C5H6O4 ISOMERS          EST 0.11 UGM./M↑3

C6H8O4 ISOMERS          EST 0.063 UGM./M↑3
C7H7NO4 ISOMERS         EST 0.0018 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.018 UGM./M↑3
C10H16O2 ISOMERS        EST 0.037 UGM./M↑3
C10H14O3 ISOMERS        EST 0.12 UGM./M↑3
C10H16O3 (PINONIC ACID?)EST 0.029 UGM./M↑3
C8H12O4 (NORPINIC ACID?)EST 0.044 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 9.2 UGM./M↑3
AMMONIUM CHLORIDE         3 0.88 UGM./M↑3
AMMONIUM NITRATE          2 1.1 UGM./M↑3
SODIUM NITRATE            1 0.24 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.20 UGM./M↑3
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HOLIDAY INN 2240 9/6/73 TO 0810 9/7/73 CDT

 SLH13F 67-97
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0067 TO RUN 0097
DATE 122973, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 108E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.76 UGM./M+3
ALKANES LOW MW             CL 0.065 UGM./M+3
ALKANES MED. MW            CL 0.44 UGM./M+3
ALKANES HI MW              CL 0.11 UGM./M+3
TOTAL ALKENES                 0.99 UGM./M+3

ALKENES LOW MW             CL 0.042 UGM./M+3
ALKENES MED. MW            CL 0.53 UGM./M+3
ALKENES HI MW              CL 0.32 UGM./M+3
ALPHA PINENE                  1.1 UGM./M+3
TERPENES AS PINENE         CL 0.43 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.33 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.11 UGM./M+3
ALKYL BENZENES C9H12     CL 1.4 UGM./M+3
ALKYL BENZENES C10H14    CL 0.050 UGM./M+3
BIPHENYL                  1 1.0 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.046 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.015 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.11 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.048 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.011 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.020 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.082 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.028 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.027 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.0092 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.026 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.13 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.046 UGM./M+3
DIHYDROXYBENZENES         1 0.083 UGM./M+3
BENZOQUINONE              L 0.0057 UGM./M+3

BENZALDEHYDE (+INTERF )   L 0.017 UGM./M+3
PHENOL                    1 0.061 UGM./M+3
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     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.031 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.052 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.0075 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.026 UGM./M↑3
PENTANDIOIC ACID       EST. 0.54 UGM./M↑3

HEXANDIOIC ACID            4 0.96 UGM./M↑3
METHYLHEXANDIOIC ACID      1 0.11 UGM./M↑3
BENZOYL ION (ARBITRARY)      0.21 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.41 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.44 UGM./M↑3
CONH FRAGMENT (RELATIVE)    1.3 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.11 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.064 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.11 UGM./M↑3

C4H9N2 FRAGMENT (RELATIVE)  0.021 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.0079 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.0089 UGM./M↑3
CARBAZOLE                 L 0.0052 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0034 UGM./M↑3

PIPERAZINE?             EST 0.0015 UGM./M↑3
NITRONAPHTHALENE        EST 0.0010 UGM./M↑3
PYRIDINE SULFATE        EST 0.070 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.8 UGM./M↑3
C7H14O3 ISOMERS         EST 0.042 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 1.7 UGM./M↑3
C7H12O3 ISOMERS         EST 0.047 UGM./M↑3
C6H12O3 ISOMERS         EST 0.12 UGM./M↑3

C5H8O4 (GLUTARIC ACID?) EST 0.84 UGM./M↑3
C6H10O3 ISOMERS         EST 0.25 UGM./M↑3
C7H12O2 ISOMERS         EST 0.13 UGM./M↑3
C5H10O3 ISOMERS         EST 0.30 UGM./M↑3
C5H10O2 ISOMERS         EST 0.094 UGM./M↑3

HOOC(CH2)5ONO2          EST 0.079 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.079 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.068 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.063 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.031 UGM./M↑3
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PAGE 003.
HOOC(CH2)4COONO2          EST 0.015 UGM./M+3
HOOC(CH2)3COONO2          EST 0.021 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.026 UGM./M+3
HCO(CH2)4COONO2+ISOMERS EST 0.11 UGM./M+3
HCO(CH2)3COONO            EST 0.026 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS            EST 0.69 UGM./M+3
C6H8O2 ISOMERS            EST 0.42 UGM./M+3
C7H10O2 ISOMERS           EST 0.26 UGM./M+3
C5H8O3 ISOMERS            EST 0.11 UGM./M+3
C5H6O4 ISOMERS            EST 0.036 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS           EST 0.036 UGM./M+3
C10H16O3 (PINONIC ACID?)EST 0.042 UGM./M+3
C8H12O4 (NORPINIC ACID?)EST 0.015 UGM./M+3
C9H14O4 (PINIC ACID?)     EST 0.034 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.1 UGM./M+3
AMMONIUM CHLORIDE           3 1.4 UGM./M+3
AMMONIUM NITRATE            2 1.9 UGM./M+3
SODIUM NITRATE              1 0.11 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)      EST 0.028 UGM./M+3
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HOLIDAY INN 1010 9/9/73 TO 0815 9/11/73 CDT

 SLH16F 34-69
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0034 TO RUN 0069
DATE 122973, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 216E +2 CUBIC METERS, ALIQUOT=0. 250E -1
INST. SENSITIVITY=0. 690E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.67 UGM./M↑3
ALKANES LOW MW              CL 0.063 UGM./M↑3
ALKANES MED. MW             CL 0.39 UGM./M↑3
ALKANES HI MW               CL 0.13 UGM./M↑3
TOTAL ALKENES                  0.74 UGM./M↑3

ALKENES LOW MW              CL 0.035 UGM./M↑3
ALKENES MED. MW             CL 0.35 UGM./M↑3
ALKENES HI MW               CL 0.33 UGM./M↑3
ALPHA PINENE                   0.60 UGM./M↑3
TERPENES AS PINENE          CL 0.38 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.36 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.099 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.88 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.092 UGM./M↑3
BIPHENYL                  1 5.2 UGM./M↑3

DIPHENYL METHANE+ISOMERS CL 0.020 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.0074 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.34 UGM./M↑3
METHYL NAPHTHALENES+INT   L 0.014 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.012 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0018 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.0095 UGM./M↑3

BENZOPERYLENE+INTERFER.   E 0.027 UGM./M↑3
DIBENZANTHRACENES C22H14  E 0.0054 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.010 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST  0.16 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.023 UGM./M↑3
DIHYDROXYBENZENES         1 0.048 UGM./M↑3
BENZOQUINONE              L 0.039 UGM./M↑3

PHENOL                    1 0.071 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.032 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST  0.015 UGM./M↑3
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PAGE 002.
TRIMETHYL BENZOIC ISOM. EST 0.0077 UGM./M+3
PENTANDIOIC ACID       EST. 0.51 UGM./M+3
HEXANDIOIC ACID           4 0.85 UGM./M+3.
METHYLHEXANDIOIC ACID     1 0.060 UGM./M+3
BENZOYL ION (ARBITRARY)     0.24 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.33 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.69 UGM./M+3
CONH FRAGMENT (RELATIVE)    2.9 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.36 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.054 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.054 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.081 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.13 UGM./M+3
PYRIDINE SULFATE        EST 0.036 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.54 UGM./M+3
C8H5O3 (PHTHALATES)         0.85 UGM./M+3
C7H12O3 ISOMERS         EST 0.027 UGM./M+3
C6H12O3 ISOMERS         EST 0.13 UGM./M+3
C6H10O3 ISOMERS         EST 0.054 UGM./M+3

C7H12O2 ISOMERS         EST 0.14 UGM./M+3
C5H10O3 ISOMERS         EST 0.081 UGM./M+3
C5H10O2 ISOMERS         EST 0.081 UGM./M+3
HOOC(CH2)5ONO2          EST 0.027 UGM./M+3
HCO(CH2)5ONO2+ISOMERS   EST 0.027 UGM./M+3

HCO(CH2)5COONO2+ISOMERS EST 0.027 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.40 UGM./M+3
C6H8O2 ISOMERS          EST 0.56 UGM./M+3
C7H10O2 ISOMERS         EST 0.18 UGM./M+3
C5H8O3 ISOMERS          EST 0.14 UGM./M+3
C5H6O4 ISOMERS          EST 0.027 UGM./M+3

C6H8O4 ISOMERS          EST 0.027 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0054 UGM./M+3
NITROCRESOLS?             L 0.0027 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.081 UGM./M+3
C10H14O3 ISOMERS        EST 0.027 UGM./M+3
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PAGE 003.

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 40. UGM./M↑3
AMMONIUM CHLORIDE         3 0.48 UGM./M↑3
AMMONIUM NITRATE          2 0.54 UGM./M↑3
SODIUM NITRATE            1 0.24 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
DDT, DDD                EST 0.013 UGM./M↑3
LINDANE                 EST 0.050 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.040 UGM./M↑3
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NATIONAL CTY 1810 8/19/74 - 2420 8/19/74 CDT

 SLN 62 4BBA+4BP 1810-2420
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0876 TO RUN 0910
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 851E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.15 UGM./M+3
ALKANES LOW MW           CL 0.021 UGM./M+3
ALKANES MED. MW          CL 0.10 UGM./M+3
ALKANES HI MW            CL 0.021 UGM./M+3
TOTAL ALKENES               0.23 UGM./M+3

ALKENES LOW MW           CL 0.017 UGM./M+3
ALKENES MED. MW          CL 0.11 UGM./M+3
ALKENES HI MW            CL 0.079 UGM./M+3
ALPHA PINENE                0.18 UGM./M+3
TERPENES AS PINENE       CL 0.091 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.11 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.012 UGM /M+3
ALKYL BENZENES C9H12     CL 0.35 UGM./M+3
ALKYL BENZENES C10H14    CL 0.045 UGM./M+3
BIPHENYL                  1 1.0 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.085 UGM /M+3
ALKYL NAPHTHALENES C12H12 L 0.0054 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0022 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.021 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.051 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.010 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.10 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.035 UGM./M+3
DIHYDROXYBENZENES         1 0.010 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.0070 UGM./M+3

PHENOL                    1 0.016 UGM /M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.31 UGM./M+3
PENTANDIOIC ACID       EST. 0.62 UGM./M+3
HEXANDIOIC ACID           4 0.48 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.059 UGM /M+3
BENZOYL ION (ARBITRARY)     0.78 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.16 UGM./M+3
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PAGE 002.

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.11 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.49 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0070 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0083 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H1204 (METHYL ADIPIC) DUP 0.54 UGM./M+3
C8H503 (PHTHALATES)         2.4 UGM./M+3
C4H604 (SUCCINIC ACID?) EST 1.9 UGM./M+3
HOOC(CH2)5ONO2          EST 0.029 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.049 UGM./M+3

HCO(CH2)4COONO2+ISOMERS EST 0.046 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS          EST 0.090 UGM./M+3
C6H802 ISOMERS          EST 0.11 UGM./M+3
C7H1002 ISOMERS         EST 0.088 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H1402 ISOMERS         EST 0.046 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.4 UGM./M+3
AMMONIUM CHLORIDE         3 0.18 UGM./M+3
AMMONIUM NITRATE          2 0.90 UGM./M+3
SODIUM NITRATE            1 0.010 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.040 UGM./M+3
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NATIONAL CTY 0045 8/20/74 - 0305 8/20/74 CDT

 SLN 63    -2BBA+2BP 0045-0305
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0491 TO RUN 0525
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 336E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.33 UGM./M+3
ALKANES LOW MW             CL 0.076 UGM./M+3
ALKANES MED. MW            CL 0.17 UGM./M+3
ALKANES HI MW              CL 0.023 UGM./M+3
TOTAL ALKENES                 0.51 UGM./M+3

ALKENES LOW MW             CL 0.032 UGM./M+3
ALKENES MED. MW            CL 0.21 UGM./M+3
ALKENES HI MW              CL 0.15 UGM./M+3
ALPHA PINENE                  0.59 UGM./M+3
TERPENES AS PINENE         CL 0.29 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.26 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.044 UGM./M+3
ALKYL BENZENES C9H12      CL 0.89 UGM./M+3
ALKYL BENZENES C10H14     CL 0.086 UGM./M+3
BIPHENYL                   1 2.2 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.012 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.17 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0090 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.032 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.020 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.10 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.089 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.19 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.084 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.060 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.012 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.11 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.024 UGM./M+3
DIHYDROXYBENZENES          1 0.040 UGM./M+3
PHENOL                     1 0.055 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.69 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.017 UGM./M+3
HEXANDIOIC ACID            4 0.17 UGM./M+3
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PAGE 002.
BENZOYL ION <ARBITRARY>     1.5 UGM./M↑3
ACIDS <AS ACETIC ACID>  EST 0.40 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT <RELATIVE>    0.11 UGM./M↑3
C3H5N2 FRAGMENT <RELATIVE>  0.24 UGM./M↑3
PIPERIDINES <+ISOMERS>  EST 0.0080 UGM./M↑3
QUINOLINE <-INTERFER?>    L 0.0036 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 <PHTHALATES>         2.9 UGM./M↑3
C5H10O2 ISOMERS         EST 0.055 UGM./M↑3
HCO<CH2>5COONO2+ISOMERS EST 0.11 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.34 UGM./M↑3
C6H8O2 ISOMERS          EST 0.049 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.061 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.6 UGM./M↑3
AMMONIUM CHLORIDE         3 0.049 UGM./M↑3
AMMONIUM NITRATE          2 0.23 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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NATIONAL CTY 0315 8/20/74 - 0700 8/20/74 CDT

 SLN 64    8/20/74 0315-0700
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0526 TO RUN 0560
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 516E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.60 UGM./M+3
ALKANES LOW MW           CL 0.17 UGM./M+3
ALKANES MED. MW          CL 0.30 UGM./M+3
ALKANES HI MW            CL 0.032 UGM./M+3
TOTAL ALKENES               0.66 UGM./M+3

ALKENES LOW MW           CL 0.040 UGM./M+3
ALKENES MED. MW          CL 0.40 UGM./M+3
ALKENES HI MW            CL 0.16 UGM./M+3
ALPHA PINENE                0.80 UGM./M+3
TERPENES AS PINENE       CL 0.21 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.18 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.094 UGM./M+3
ALKYL BENZENES C9H12     CL 1.1 UGM./M+3
ALKYL BENZENES C10H14    CL 0.065 UGM./M+3
BIPHENYL                  1 0.0027 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.014 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.034 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.037 UGM /M+3
ANTHRACENE-PHENANTHRENE   2 0.0030 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.013 UGM /M+3
CHRYSENE, ISOMERS C18H12  L 0.022 UGM./M+3

PERYLENE, ISOMERS C20H12  L 0.13 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.10 UGM./M+3
CORONENE?                 E 0.0097 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.012 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.023 UGM./M+3
DIHYDROXYBENZENES         1 0.019 UGM./M+3
PHENOL                    1 0.0036 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.016 UGM./M+3
PENTANDIOIC ACID       EST. 0.10 UGM./M+3
BENZOYL ION (ARBITRARY)     0.065 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.16 UGM./M+3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.15 UGM./M↑3
CONH FRAGMENT (RELATIVE)    0.24 UGM./M↑3
CARBAZOLE                 L 0.010 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0024 UGM./M↑3
PYRIDINE SULFATE        EST 0.021 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.90 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 1.1 UGM./M↑3
C7H12O2 ISOMERS         EST 0.11 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.16 UGM./M↑3
C6H8O2 ISOMERS          EST 0.072 UGM./M↑3
C5H6O4 ISOMERS          EST 0.048 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 6.0 UGM./M↑3
AMMONIUM CHLORIDE         3 0.074 UGM./M↑3
AMMONIUM NITRATE          2 0.58 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.14 UGM./M↑3
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NATIONAL CTY 0705 8/20/74 - 0905 8/20/74 CDT

 SLN 65    0705-0905 +2UG. BBA
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0426 TO RUN 0460
DATE 031275, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 288E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 850E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.52 UGM./M+3
ALKANES LOW MW              CL 0.097 UGM./M+3
ALKANES MED. MW             CL 0.29 UGM./M+3
ALKANES HI MW               CL 0.045 UGM./M+3
TOTAL ALKENES                  0.64 UGM./M+3

ALKENES LOW MW              CL 0.044 UGM./M+3
ALKENES MED. MW             CL 0.42 UGM./M+3
ALKENES HI MW               CL 0.22 UGM./M+3
ALPHA PINENE                   0.57 UGM./M+3
TERPENES AS PINENE          CL 0.23 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.18 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.094 UGM /M+3
ALKYL BENZENES C9H12     CL 0.98 UGM./M+3
ALKYL BENZENES C10H14    CL 0.15 UGM./M+3
DIPHENYL METHANE+ISOMERS CL 0.010 UGM /M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.027 UGM./M+3
METHYL NAPHTHALENES+INT.    L 0.011 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0083 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.012 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.0081 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.013 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.053 UGM./M+3
BENZOPERYLENE+INTERFER.   E 0.030 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.014 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.019 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.072 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.070 UGM /M+3
DIHYDROXYBENZENES         1 0.013 UGM./M+3
BENZALDEHYDE (+INTERF )   L 0.012 UGM /M+3

PHENOL                    1 0.018 UGM /M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.30 UGM./M+3
PENTANDIOIC ACID       EST. 0.28 UGM./M+3
HEXANDIOIC ACID           4 0.66 UGM./M+3
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PAGE 002.
METHYLHEXANDIOIC ACID     1 0.14 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.99 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.18 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.053 UGM./M↑3
CONH FRAGMENT (RELATIVE)    0.11 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.10 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.0070 UGM./M↑3
CARBAZOLE                 L 0.0055 UGM./M↑3

ACRIDINE & ISOMERS        L 0.0072 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.97 UGM./M↑3
C7H14O3 ISOMERS         EST 0.048 UGM./M↑3
C6H10O3 ISOMERS         EST 0.066 UGM./M↑3
HOOC(CH2)4ONO2          EST 0.053 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.11 UGM./M↑3
C7H10O2 ISOMERS         EST 0.048 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 6.3 UGM./M↑3
AMMONIUM CHLORIDE         3 0.35 UGM./M↑3
AMMONIUM NITRATE          2 1.7 UGM./M↑3
SODIUM NITRATE            1 0.0095 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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NATIONAL CTY 0915 8/20/74 - 1115 8/20/74 CDT

 SLN 66    +2BBA+2BP 0915-1115
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0561 TO RUN 0595
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 288E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.20 UGM./M+3
ALKANES LOW MW             CL 0.047 UGM./M+3
ALKANES MED. MW            CL 0.097 UGM./M+3
ALKANES HI MW              CL 0.0093 UGM./M+3
TOTAL ALKENES                 0.30 UGM./M+3

ALKENES LOW MW             CL 0.029 UGM./M+3
ALKENES MED. MW            CL 0.10 UGM./M+3
ALKENES HI MW              CL 0.038 UGM./M+3
ALPHA PINENE                  0.13 UGM./M+3
TERPENES AS PINENE         CL 0.063 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.10 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.0090 UGM./M+3
ALKYL BENZENES C9H12     CL 0.16 UGM./M+3
BIPHENYL                  1 2.5 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.14 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.082 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.010 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.13 UGM./M+3
DIHYDROXYBENZENES         1 0.015 UGM./M+3
PHENOL                    1 0.037 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.66 UGM./M+3
PENTANDIOIC ACID       EST. 0.16 UGM./M+3
BENZOYL ION (ARBITRARY)     1.6 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.17 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.30 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.013 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.022 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         3.6 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.13 UGM./M+3
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PAGE 002.
C6H8O2 ISOMERS          EST 0.13 UGM./M↑3
C7H10O2 ISOMERS         EST 0.086 UGM./M↑3
NITROCRESOLS?             L 0.0039 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 17. UGM./M↑3
AMMONIUM CHLORIDE         3 0.0046 UGM./M↑3
AMMONIUM NITRATE          2 0.10 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.22 UGM./M↑3
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NATIONAL CTY 1200 8/20/74 - 1340 8/20/74 CDT

 SLN 67   +2BBA+2BP 1200-1340
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0596 TO RUN 0630
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 240E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.081 UGM./M↑3
ALKANES LOW MW           CL 0.0047 UGM./M↑3
ALKANES MED. MW          CL 0.027 UGM./M↑3
ALKANES HI MW            CL 0.017 UGM./M↑3
TOTAL ALKENES               0.14 UGM./M↑3

ALKENES MED. MW          CL 0.042 UGM./M↑3
ALKENES HI MW            CL 0.086 UGM /M↑3
TERPENES AS PINENE       CL 0.046 UGM./M↑3
XYLENES,MON SUB BENZENES CL 0.064 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.093 UGM./M↑3

BIPHENYL                  1 1.0 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.033 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.0094 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0039 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.018 UGM./M↑3
DIHYDROXYBENZENES         1 0.0070 UGM./M↑3
PHENOL                    1 0.0072 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.18 UGM./M↑3
HEXANDIOIC ACID           4 0.11 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.47 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.11 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.059 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.22 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.0042 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.0046 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         4.1 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.059 UGM./M↑3
C7H7NO4 ISOMERS         EST 0.0042 UGM./M↑3
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PAGE 002.

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.093 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 6.5 UGM./M↑3
AMMONIUM NITRATE          2 0.31 UGM./M↑3
SODIUM NITRATE            1 0.021 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.026 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.027 UGM./M↑3
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NATIONAL CTY 1400 8/20/74 - 1820 8/20/74 CDT

 SLN 68    8/20/74 1400-1820
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0106 TO RUN 0140
DATE 031875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 624E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 200E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.29 UGM./M↑3
ALKANES LOW MW           CL 0.11 UGM./M↑3
ALKANES MED. MW          CL 0.039 UGM./M↑3
TOTAL ALKENES               0.36 UGM./M↑3
ALKENES LOW MW           CL 0.017 UGM./M↑3

ALKENES MED. MW          CL 0.15 UGM./M↑3
ALKENES HI MW            CL 0.11 UGM./M↑3
ALPHA PINENE                0.069 UGM./M↑3
TERPENES AS PINENE       CL 0.068 UGM./M↑3
XYLENES,MON SUB BENZENES CL 0.12 UGM./M↑3

XYLENES, ETHYL BENZENE   CL 0.033 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.10 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.0064 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.013 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.12 UGM./M↑3
DIHYDROXYBENZENES         1 0.033 UGM./M↑3
PHENOL                    1 0.024 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
METHYL BENZOIC ISOMERS EST. 0.019 UGM./M↑3
PENTANDIOIC ACID       EST. 0.91 UGM./M↑3
HEXANDIOIC ACID           4 0.11 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.10 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.23 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.83 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.20 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.015 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0064 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.8 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.27 UGM./M↑3
C7H10O2 ISOMERS         EST 0.10 UGM./M↑3
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C7H7NO4 ISOMERS         EST 0.0087 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.10 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 37. UGM./M↑3
AMMONIUM CHLORIDE         3 0.099 UGM./M↑3
AMMONIUM NITRATE          2 0.24 UGM./M↑3
SODIUM NITRATE            1 0.031 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.076 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.43 UGM./M↑3
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NATIONAL CTY 1835 8/20/74 - 2130 8/20/74 CDT

 SLN 69    2 PUNCHES 1835-2:30
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0666 TO RUN 0700
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 403E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.11 UGM./M+3
ALKANES MED. MW          CL 0.053 UGM./M+3
ALKANES HI MW            CL 0.031 UGM./M+3
TOTAL ALKENES               0.18 UGM./M+3
ALKENES LOW MW           CL 0.0041 UGM./M+3

ALKENES MED. MW          CL 0.067 UGM./M+3
ALKENES HI MW            CL 0.10 UGM./M+3
ALPHA PINENE                0.086 UGM./M+3
TERPENES AS PINENE       CL 0.063 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.066 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.0059 UGM./M+3
ALKYL BENZENES C9H12     CL 0.28 UGM./M+3
ALKYL BENZENES C10H14    CL 0.0059 UGM./M+3
BIPHENYL                  1 0.79 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.029 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0033 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.00095 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.011 UGM./M+3
DIHYDROXYBENZENES         1 0.029 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.0064 UGM./M+3
PHENOL                    1 0.0087 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.12 UGM./M+3
PENTANDIOIC ACID       EST. 0.078 UGM./M+3
HEXANDIOIC ACID           4 0.31 UGM./M+3
BENZOYL ION (ARBITRARY)     0.33 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.057 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.18 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.11 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.030 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.034 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0026 UGM./M+3
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PAGE 002.

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          0.76 UGM./M+3
C5H10O2 ISOMERS           EST 0.030 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS            EST 0.24 UGM./M+3
C6H8O2 ISOMERS            EST 0.053 UGM./M+3
C7H10O2 ISOMERS           EST 0.020 UGM./M+3
NITROCRESOLS?               L 0.0030 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS           EST 0.027 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.4 UGM./M+3
AMMONIUM CHLORIDE           3 0.030 UGM./M+3
AMMONIUM NITRATE            2 0.19 UGM./M+3
SODIUM NITRATE              1 0.017 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)      EST 0.015 UGM./M+3
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NATIONAL CTY 2140 8/20/74 - 0120 8/21/74 CDT

 SLN70
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0771 TO RUN 0805
DATE 031475, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 520E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 520E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.17 UGM./M↑3
ALKANES LOW MW           CL 0.041 UGM./M↑3
ALKANES MED. MW          CL 0.073 UGM./M↑3
ALKANES HI MW            CL 0.0071 UGM./M↑3
TOTAL ALKENES               0.28 UGM./M↑3

ALKENES LOW MW           CL 0.036 UGM./M↑3
ALKENES MED. MW          CL 0.036 UGM./M↑3
ALKENES HI MW            CL 0.050 UGM./M↑3
ALPHA PINENE                0.28 UGM./M↑3
TERPENES AS PINENE       CL 0.088 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.052 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.025 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.25 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.031 UGM./M↑3
BIPHENYL                  1 0.61 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.048 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.0071 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.0064 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.014 UGM./M↑3
PERYLENE, ISOMERS C20H12  L 0.0036 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0084 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.051 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.011 UGM./M↑3
DIHYDROXYBENZENES         1 0.014 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.0057 UGM./M↑3

PHENOL                    1 0.0065 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.11 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.0077 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.019 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.0055 UGM./M↑3
PENTANDIOIC ACID       EST. 0.077 UGM./M↑3

HEXANDIOIC ACID           4 0.13 UGM./M↑3
METHYLHEXANDIOIC ACID     1 0.051 UGM./M↑3
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PAGE 002.
BENZOYL ION (ARBITRARY)     0.36 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.22 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.12 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.24 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.015 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.020 UGM./M+3

PIPERIDINES (+ISOMERS)  EST 0.010 UGM./M+3
ACRIDINE & ISOMERS        L 0.0034 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0020 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.8 UGM./M+3
C7H12O3 ISOMERS         EST 0.019 UGM./M+3
C6H12O3 ISOMERS         EST 0.021 UGM./M+3
C6H10O3 ISOMERS         EST 0.029 UGM./M+3
C7H12O2 ISOMERS         EST 0.023 UGM./M+3

C5H10O3 ISOMERS         EST 0.021 UGM./M+3
C6H12O2 ISOMERS         EST 0.023 UGM./M+3
HOOC(CH2)5ONO2          EST 0.034 UGM./M+3
HCO(CH2)5ONO2+ISOMERS   EST 0.023 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.12 UGM./M+3
C6H8O2 ISOMERS          EST 0.10 UGM./M+3
C7H10O2 ISOMERS         EST 0.058 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0015 UGM./M+3
NITROCRESOLS?             L 0.0062 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H14O3 ISOMERS        EST 0.019 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 2.2 UGM./M+3
AMMONIUM CHLORIDE         3 0.0043 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.012 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.026 UGM./M+3
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NATIONAL CTY 0130 8/21/74 - 0700 8/21/74 CDT

 SLN 71 4.5 HRS 0130-0700
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0071 TO RUN 0105
DATE 031875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 648E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 200E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.2 UGM./M+3
ALKANES LOW MW            CL 0.23 UGM./M+3
ALKANES MED. MW           CL 0.63 UGM./M+3
ALKANES HI MW             CL 0.052 UGM./M+3
TOTAL ALKENES                1.6 UGM./M+3

ALKENES LOW MW            CL 0.14 UGM./M+3
ALKENES MED. MW           CL 0.97 UGM./M+3
ALKENES HI MW             CL 0.32 UGM./M+3
ALPHA PINENE                 1.8 UGM./M+3
TERPENES AS PINENE        CL 0.58 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.33 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.19 UGM./M+3
ALKYL BENZENES C9H12      CL 2.0 UGM./M+3
ALKYL BENZENES C10H14     CL 0.21 UGM./M+3
BIPHENYL                   1 0.018 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.019 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.085 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.10 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.097 UGM./M+3
ANTHRACENE-PHENANTHRENE    2 0.014 UGM./M+3
PYRENE & ISOMERS C16H10    L 0.091 UGM./M+3

CHRYSENE, ISOMERS C18H12  L 0.061 UGM./M+3
PERYLENE, ISOMERS C20H12  L 0.15 UGM./M+3
BENZOPERYLENE+INTERFER.    E 0.15 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.031 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.14 UGM./M+3
DIHYDROXYBENZENES          1 0.023 UGM./M+3
PHENOL                     1 0.057 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.23 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.028 UGM./M+3
PENTANDIOIC ACID        EST. 1.5 UGM./M+3
HEXANDIOIC ACID            4 1.1 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.87 UGM./M+3
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PAGE 002.
BENZOYL ION (ARBITRARY)      0.67 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.71 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.075 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.62 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.13 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0072 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.051 UGM /M+3

CARBAZOLE                 L 0.0069 UGM./M+3
ACRIDINE & ISOMERS        L 0.010 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0087 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          3.2 UGM./M+3
C6H12O3 ISOMERS         EST 0.16 UGM./M+3
C7H12O2 ISOMERS         EST 0.20 UGM./M+3
C5H10O3 ISOMERS         EST 0.092 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.32 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.20 UGM./M+3
C6H8O2 ISOMERS          EST 0.53 UGM./M+3
C7H10O2 ISOMERS         EST 0.29 UGM./M+3
C5H8O3 ISOMERS          EST 0.16 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H16O3 (PINONIC ACID?)EST 0.13 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 19. UGM./M+3
AMMONIUM CHLORIDE         3 0.52 UGM./M+3
AMMONIUM NITRATE          2 4.1 UGM./M+3
SODIUM NITRATE            1 0.020 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.094 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.12 UGM./M+3
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TYSON VALLEY 1900 9/4/73 TO 1735 9/5/73 CDT

 SLT1F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0061 TO RUN 0090
DATE 122473, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 121E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 268E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.11 UGM./M+3
ALKANES LOW MW           CL 0.017 UGM./M+3
ALKANES MED. MW          CL 0.062 UGM./M+3
ALKANES HI MW            CL 0.020 UGM./M+3
TOTAL ALKENES               0.19 UGM./M+3

ALKENES LOW MW           CL 0.0053 UGM./M+3
ALKENES MED. MW          CL 0.061 UGM./M+3
ALKENES HI MW            CL 0.061 UGM./M+3
ALPHA PINENE                0.12 UGM./M+3
TERPENES AS PINENE       CL 0.098 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.085 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.016 UGM./M+3
ALKYL BENZENES C9H12     CL 0.22 UGM./M+3
ALKYL BENZENES C10H14    CL 0.018 UGM./M+3
BIPHENYL                  1 0.049 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0018 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.0059 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.0045 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0019 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0034 UGM./M+3
CHRYSENE, ISOMERS C18H12  L 0.0025 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0091 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.018 UGM./M+3
DIHYDROXYBENZENES         1 0.0022 UGM./M+3
BENZOQUINONE              L 0.0045 UGM./M+3
PHENOL                    1 0.014 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
PENTANDIOIC ACID       EST. 0.062 UGM./M+3
HEXANDIOIC ACID           4 0.11 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.055 UGM./M+3
BENZOYL ION (ARBITRARY)     0.024 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.12 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.18 UGM./M+3
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PAGE 002.
CONH FRAGMENT (RELATIVE)    0.47 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.074 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.049 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.037 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.00062 UGM./M↑3

PIPERIDINES (+ISOMERS)  EST 0.0049 UGM./M↑3
CARBAZOLE                 L 0.0015 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0013 UGM./M↑3
PYRIDINE SULFATE        EST 0.014 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C6H10O4 (ADIPIC ACID)   DUP 0.37 UGM./M↑3
C7H12O3 ISOMERS         EST 0.049 UGM./M↑3
C6H12O3 ISOMERS         EST 0.068 UGM./M↑3
C7H12O2 ISOMERS         EST 0.015 UGM./M↑3
C5H10O3 ISOMERS         EST 0.065 UGM./M↑3

HOOC(CH2)4ONO2          EST 0.018 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.037 UGM./M↑3
HCO(CH2)4COONO          EST 0.024 UGM./M↑3
HCO(CH2)3COONO          EST 0.015 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.018 UGM./M↑3
C7H10O2 ISOMERS         EST 0.034 UGM./M↑3
C5H8O3 ISOMERS          EST 0.055 UGM./M↑3
C7H7NO4 ISOMERS         EST 0.0043 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H16O2 ISOMERS        EST 0.012 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 1.8 UGM./M↑3
AMMONIUM CHLORIDE         3 0.088 UGM./M↑3
AMMONIUM NITRATE          2 0.13 UGM./M↑3
SODIUM NITRATE            1 0.082 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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TYSON VALLEY 1807 9/5/73 TO 0826 9/6/73 CDT

 SLT2F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0031 TO RUN 0060
DATE 122473, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 155E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 263E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.076 UGM./M+3
ALKANES LOW MW              CL 0.0098 UGM./M+3
ALKANES MED. MW             CL 0.026 UGM./M+3
ALKANES HI MW               CL 0.028 UGM./M+3
TOTAL ALKENES                  0.12 UGM./M+3

ALKENES LOW MW              CL 0.00096 UGM./M+3
ALKENES MED. MW             CL 0.042 UGM./M+3
ALKENES HI MW               CL 0.055 UGM./M+3
ALPHA PINENE                   0.019 UGM./M+3
TERPENES AS PINENE          CL 0.060 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.086 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.012 UGM./M+3
ALKYL BENZENES C9H12     CL 0.12 UGM./M+3
ALKYL BENZENES C10H14    CL 0.0093 UGM./M+3
BIPHENYL                  1 0.029 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0033 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.0091 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0018 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.00076 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.0024 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.011 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.018 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.0085 UGM./M+3
DIHYDROXYBENZENES         1 0.0095 UGM./M+3
PHENOL                    1 0.0014 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.0046 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.0063 UGM./M+3
HEXANDIOIC ACID           4 0.097 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.044 UGM./M+3
BENZOYL ION (ARBITRARY)     0.014 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.080 UGM./M+3
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PAGE 002.

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.14 UGM./M+3
CONH FRAGMENT (RELATIVE)     0.24 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.069 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.0030 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.037 UGM./M+3

C4H9N2 FRAGMENT (RELATIVE)  0.012 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.00066 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0064 UGM./M+3
ACRIDINE & ISOMERS        L 0.0016 UGM./M+3
PYRIDINE SULFATE        EST 0.011 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.027 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 0.29 UGM./M+3
C5H8O4 (GLUTARIC ACID?) EST 0.24 UGM./M+3
C6H10O3 ISOMERS         EST 0.034 UGM./M+3
C7H12O2 ISOMERS         EST 0.034 UGM./M+3

C5H10O2 ISOMERS         EST 0.032 UGM./M+3
HCO(CH2)3COONO          EST 0.024 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.080 UGM./M+3
C6H8O2 ISOMERS          EST 0.12 UGM./M+3
C7H10O2 ISOMERS         EST 0.037 UGM./M+3
C5H8O3 ISOMERS          EST 0.014 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0019 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.012 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 2.1 UGM./M+3
AMMONIUM CHLORIDE         3 0.054 UGM./M+3
AMMONIUM NITRATE          2 0.065 UGM./M+3
SODIUM NITRATE            1 0.032 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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TYSON VALLEY 0911 9/6/73 TO 1810 9/6/73 CDT

 SLT3F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0030
DATE 122473, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 974E +1 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 263E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.23 UGM./M+3
ALKANES LOW MW             CL 0.060 UGM./M+3
ALKANES MED. MW            CL 0.077 UGM./M+3
ALKANES HI MW              CL 0.053 UGM./M+3
TOTAL ALKENES                 0.33 UGM./M+3

ALKENES LOW MW             CL 0.010 UGM./M+3
ALKENES MED. MW            CL 0.11 UGM./M+3
ALKENES HI MW              CL 0.10 UGM./M+3
ALPHA PINENE                  0.14 UGM./M+3
TERPENES AS PINENE         CL 0.13 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.12 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.035 UGM./M+3
ALKYL BENZENES C9H12     CL 0.10 UGM./M+3
ALKYL BENZENES C10H14    CL 0.010 UGM./M+3
BIPHENYL                  1 0.67 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0015 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.0043 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.056 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0071 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0069 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.0016 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.014 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.062 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.022 UGM./M+3
DIHYDROXYBENZENES         1 0.073 UGM./M+3
BENZOQUINONE              L 0.0035 UGM./M+3

BENZALDEHYDE (+INTERF.)   L 0.0025 UGM./M+3
PHENOL                    1 0.0070 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.012 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.0028 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.0045 UGM./M+3
PENTANDIOIC ACID       EST. 0.51 UGM./M+3
HEXANDIOIC ACID           4 0.53 UGM./M+3
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PAGE 002.
BENZOYL ION (ARBITRARY)     0.055 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.22 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.15 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.77 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.10 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.043 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0023 UGM./M+3

QUINOLINE (-INTERFER?)    L 0.010 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.65 UGM./M+3
C7H14O3 ISOMERS         EST 0.019 UGM./M+3
C7H12O3 ISOMERS         EST 0.023 UGM./M+3
C6H12O3 ISOMERS         EST 0.047 UGM./M+3
C6H10O3 ISOMERS         EST 0.019 UGM./M+3

C7H12O2 ISOMERS         EST 0.092 UGM./M+3
C5H10O3 ISOMERS         EST 0.071 UGM./M+3
C6H12O2 ISOMERS         EST 0.023 UGM./M+3
C5H10O2 ISOMERS         EST 0.015 UGM./M+3
HOOC(CH2)5ONO2          EST 0.039 UGM./M+3

HOOC(CH2)4ONO2          EST 0.035 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.023 UGM./M+3
HOOC(CH2)3COONO2        EST 0.019 UGM./M+3
HCO(CH2)4COONO          EST 0.019 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.61 UGM./M+3
C6H8O2 ISOMERS          EST 0.023 UGM./M+3
C7H10O2 ISOMERS         EST 0.082 UGM./M+3
C5H8O3 ISOMERS          EST 0.043 UGM./M+3
C7H7NO4 ISOMERS         EST 0.011 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.019 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.6 UGM./M+3
AMMONIUM CHLORIDE         3 0.12 UGM./M+3
AMMONIUM NITRATE          2 0.26 UGM./M+3
SODIUM NITRATE            1 0.038 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.012 UGM./M+3
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TYSON VALLEY 1820 9/6/73 TO 0856 9/7/73 CDT

 SLT4F 1-30
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0030
DATE 122773, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 166E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 177E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.49 UGM./M↑3
ALKANES LOW MW           CL 0.084 UGM./M↑3
ALKANES MED. MW          CL 0.068 UGM./M↑3
ALKANES HI MW            CL 0.27 UGM./M↑3
TOTAL ALKENES               0.48 UGM./M↑3

ALKENES LOW MW           CL 0.038 UGM./M↑3
ALKENES MED. MW          CL 0.074 UGM./M↑3
ALKENES HI MW            CL 0.42 UGM./M↑3
ALPHA PINENE                0.53 UGM./M↑3
TERPENES AS PINENE       CL 0.27 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.26 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.13 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.96 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.10 UGM./M↑3
BIPHENYL                  1 0.020 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.036 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.031 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.0059 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.010 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.0033 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.028 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.078 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.047 UGM./M↑3
DIHYDROXYBENZENES         1 0.045 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.0026 UGM./M↑3

PHENOL                    1 0.046 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.015 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.0058 UGM./M↑3
PENTANDIOIC ACID       EST. 0.33 UGM./M↑3
HEXANDIOIC ACID           4 0.45 UGM./M↑3
METHYLHEXANDIOIC ACID     1 0.31 UGM./M↑3

BENZOYL ION (ARBITRARY)     0.11 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.28 UGM./M↑3
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PAGE 002.

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.40 UGM./M+3
CONH FRAGMENT (RELATIVE)    1.0 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.054 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.020 UGM./M+3

CARBAZOLE                 L 0.0022 UGM./M+3
PYRIDINE SULFATE        EST 0.013 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.61 UGM./M+3
C8H5O3 (PHTHALATES)         1.1 UGM./M+3
C7H14O3 ISOMERS         EST 0.041 UGM./M+3
C7H12O3 ISOMERS         EST 0.082 UGM./M+3
C6H12O3 ISOMERS         EST 0.044 UGM./M+3

C6H10O3 ISOMERS         EST 0.024 UGM./M+3
C7H12O2 ISOMERS         EST 0.037 UGM./M+3
C5H10O3 ISOMERS         EST 0.19 UGM./M+3
C6H12O2 ISOMERS         EST 0.024 UGM./M+3
HOOC(CH2)4ONO2          EST 0.024 UGM./M+3

HCO(CH2)6ONO2+ISOMERS   EST 0.020 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.020 UGM./M+3
HCO(CH2)4COONO2+ISOMERS EST 0.020 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.37 UGM./M+3
C6H8O2 ISOMERS          EST 0.16 UGM./M+3
C7H10O2 ISOMERS         EST 0.020 UGM./M+3
C5H8O3 ISOMERS          EST 0.020 UGM./M+3
C6H8O4 ISOMERS          EST 0.020 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.027 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 3.8 UGM./M+3
AMMONIUM CHLORIDE         3 0.28 UGM./M+3
AMMONIUM NITRATE          2 0.46 UGM./M+3
SODIUM NITRATE            1 0.37 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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TYSON VALLEY 0909 9/7/73 TO 1335 9/8/73 CDT

 SLT5F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0027 TO RUN 0056
DATE 122373, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 307E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 196E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 0.095 UGM./M+3
ALKANES LOW MW            CL 0.0053 UGM./M+3
ALKANES MED. MW           CL 0.054 UGM./M+3
ALKANES HI MW             CL 0.022 UGM./M+3
TOTAL ALKENES                0.17 UGM./M+3

ALKENES LOW MW            CL 0.0048 UGM./M+3
ALKENES MED. MW           CL 0.064 UGM./M+3
ALKENES HI MW             CL 0.070 UGM./M+3
ALPHA PINENE                 0.15 UGM./M+3
TERPENES AS PINENE        CL 0.078 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.095 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.013 UGM./M+3
ALKYL BENZENES C9H12      CL 0.21 UGM./M+3
ALKYL BENZENES C10H14     CL 0.0096 UGM./M+3
BIPHENYL                   1 0.38 UGM./M+3

DIPHENYL METHANE+ISOMERS CL 0.0010 UGM./M+3
DIPHENYL ETHANE & ISOMERS L 0.0059 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.031 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.0029 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.00092 UGM./M+3
ANTHRACENE-PHENANTHRENE    2 0.00040 UGM./M+3
PYRENE & ISOMERS C16H10    L 0.00094 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.012 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.020 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.011 UGM./M+3
DIHYDROXYBENZENES          1 0.023 UGM./M+3
BENZOQUINONE               L 0.0030 UGM./M+3

NAPHTHOQUINONE?        EST. 0.0036 UGM./M+3
BENZALDEHYDE (+INTERF.)    L 0.0077 UGM./M+3
PHENOL                     1 0.024 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.0041 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.020 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.0081 UGM./M+3
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PAGE 002.
TRIMETHYL BENZOIC ISOM.  EST 0.0043 UGM./M+3
PENTANDIOIC ACID       EST. 0.28 UGM./M+3
HEXANDIOIC ACID            4 0.42 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.15 UGM./M+3
BENZOYL ION (ARBITRARY)      0.061 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.14 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.34 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.55 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.011 UGM./M+3
CH2NO3 FRAGMENT (RELATIVE)  0.0041 UGM./M+3
C4H9N2 FRAGMENT (RELATIVE)  0.010 UGM./M+3

PYRIDINE + PYRIDYL CPDS   L 0.00033 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.0062 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          0.22 UGM./M+3
C7H12O2 ISOMERS         EST 0.011 UGM./M+3.
C5H10O3 ISOMERS         EST 0.013 UGM./M+3
C5H10O2 ISOMERS         EST 0.016 UGM./M+3
HOOC(CH2)5ONO2          EST 0.0067 UGM./M+3

HOOC(CH2)4ONO2          EST 0.0084 UGM./M+3
HOOC(CH2)4COONO2        EST 0.0084 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.19 UGM./M+3
C6H8O2 ISOMERS          EST 0.14 UGM./M+3
C7H10O2 ISOMERS         EST 0.040 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 15. UGM./M+3
AMMONIUM CHLORIDE         3 0.093 UGM./M+3
AMMONIUM NITRATE          2 0.14 UGM./M+3
SODIUM NITRATE            1 0.048 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.0041 UGM./M+3
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TYSON VALLEY 1345 9/8/73 TO 1145 9/9/73 CDT

 SLT6F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0091 TO RUN 0120
DATE 122473, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0.244E +2 CUBIC METERS, ALIQUOT=0.100E +0
INST. SENSITIVITY=0.263E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.022 UGM./M+3
ALKANES LOW MW           CL 0.0015 UGM./M+3
ALKANES MED. MW          CL 0.017 UGM./M+3
ALKANES HI MW            CL 0.012 UGM./M+3
TOTAL ALKENES               0.073 UGM./M+3

ALKENES LOW MW           CL 0.00070 UGM./M+3
ALKENES MED. MW          CL 0.024 UGM./M+3
ALKENES HI MW            CL 0.020 UGM./M+3
ALPHA PINENE                0.018 UGM./M+3
TERPENES AS PINENE       CL 0.029 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.030 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.0058 UGM./M+3
ALKYL BENZENES C9H12     CL 0.10 UGM./M+3
ALKYL BENZENES C10H14    CL 0.0051 UGM./M+3
BIPHENYL                  1 0.17 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.015 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.0012 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.0012 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0024 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.011 UGM./M+3
DIHYDROXYBENZENES         1 0.0013 UGM./M+3
PHENOL                    1 0.0023 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.0023 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.0049 UGM./M+3
PENTANDIOIC ACID       EST. 0.063 UGM./M+3
HEXANDIOIC ACID           4 0.020 UGM./M+3
BENZOYL ION (ARBITRARY)     0.0080 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.076 UGM /M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.13 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.16 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.054 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.025 UGM /M+3
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PAGE 002.
PYRIDINE + PYRIDYL CPDS   L 0.00073 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.0041 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.0023 UGM./M↑3
PYRIDINE SULFATE        EST 0.0062 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 0.12 UGM./M↑3
C8H5O3 (PHTHALATES)         0.18 UGM./M↑3
C5H8O4 (GLUTARIC ACID?) EST 0.21 UGM./M↑3
C6H10O3 ISOMERS         EST 0.0062 UGM./M↑3
C7H12O2 ISOMERS         EST 0.028 UGM./M↑3

C5H10O2 ISOMERS         EST 0.0078 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.0062 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.0078 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.011 UGM./M↑3
C6H8O2 ISOMERS          EST 0.028 UGM./M↑3
C7H10O2 ISOMERS         EST 0.022 UGM./M↑3
C7H7NO4 ISOMERS         EST 0.00078 UGM./M↑3
NITROCRESOLS?             L 0.00094 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.7 UGM./M↑3
AMMONIUM CHLORIDE         3 0.057 UGM./M↑3
AMMONIUM NITRATE          2 0.14 UGM./M↑3
SODIUM NITRATE            1 0.025 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
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TYSON VALLEY 1155 9/9/73 TO 1155 9/10/73 CDT

 SLT7F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0121 TO RUN 0150
DATE 122473, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0. 266E +2 CUBIC METERS, ALIQUOT=0. 100E +0
INST. SENSITIVITY=0. 263E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.027 UGM /M+3
ALKANES LOW MW           CL 0.00048 UGM./M+3
ALKANES MED. MW          CL 0.0032 UGM./M+3
ALKANES HI MW            CL 0.0066 UGM./M+3
TOTAL ALKENES               0.056 UGM./M+3

ALKENES MED. MW          CL 0.014 UGM./M+3
ALKENES HI MW            CL 0.019 UGM./M+3
TERPENES AS PINENE       CL 0.010 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.019 UGM./M+3
ALKYL BENZENES C9H12     CL 0.0081 UGM./M+3

BIPHENYL                  1 0.11 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.012 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.00049 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.00063 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.0024 UGM./M+3
DIHYDROXYBENZENES         1 0.00068 UGM./M+3
PHENOL                    1 0.0027 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.0037 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.0024 UGM./M+3
PENTANDIOIC ACID       EST. 0.057 UGM./M+3
HEXANDIOIC ACID           4 0.056 UGM./M+3
BENZOYL ION (ARBITRARY)     0.0097 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 0.037 UGM /M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.093 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.11 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.027 UGM /M+3
CH2NO3 FRAGMENT (RELATIVE)  0.0050 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.0057 UGM./M+3

PIPERIDINES (+ISOMERS)  EST 0.0023 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.0018 UGM./M+3
PYRIDINE SULFATE        EST 0.011 UGM./M+3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         6.030 UGM./M+3
C6H10O4 (ADIPIC ACID)   DUP 0.17 UGM./M+3
C7H12O3 ISOMERS         EST 0.0086 UGM./M+3
C6H12O3 ISOMERS         EST 0.015 UGM./M+3
C6H10O3 ISOMERS         EST 0.043 UGM./M+3

C4H6O4 (SUCCINIC ACID?) EST 0.17 UGM./M+3
C5H10O2 ISOMERS         EST 0.023 UGM./M+3
HOOC(CH2)4ONO2          EST 0.037 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.0072 UGM./M+3
HCO(CH2)3COONO          EST 0.015 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.0057 UGM./M+3
C6H8O2 ISOMERS          EST 0.0057 UGM./M+3
C7H10O2 ISOMERS         EST 0.0057 UGM./M+3
C5H8O3 ISOMERS          EST 0.0086 UGM./M+3
C7H7NO4 ISOMERS         EST 0.0011 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.021 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 8.2 UGM./M+3
AMMONIUM CHLORIDE         3 0.029 UGM./M+3
AMMONIUM NITRATE          2 0.041 UGM./M+3
SODIUM NITRATE            1 0.0051 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.0022 UGM./M+3
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TYSON VALLEY 1405 9/10/73 TO 1625 9/11 CDT

 SLT8F
FILE NO. 0001, FIT TOL. 003 (MILLIMASS) RUN 0001 TO RUN 0036
DATE 122773, PASS3 ERROR 26 (MILLIMASS)
TOTAL SAMPLE=0.308E +2 CUBIC METERS, ALIQUOT=0.100E +0
INST. SENSITIVITY=0.177E +5
CHECK HEIGHT RATIO=0.500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.11 UGM./M+3
ALKANES LOW MW           CL 0.029 UGM./M+3
ALKANES MED. MW          CL 0.031 UGM./M+3
ALKANES HI MW            CL 0.028 UGM./M+3
TOTAL ALKENES               0.12 UGM./M+3

ALKENES LOW MW           CL 0.015 UGM./M+3
ALKENES MED. MW          CL 0.035 UGM./M+3
ALKENES HI MW            CL 0.057 UGM./M+3
ALPHA PINENE                0.091 UGM./M+3
TERPENES AS PINENE       CL 0.048 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.077 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.018 UGM./M+3
ALKYL BENZENES C9H12     CL 0.19 UGM./M+3
ALKYL BENZENES C10H14    CL 0.0039 UGM./M+3
BIPHENYL                  1 0.44 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.040 UGM./M+3
METHYL NAPHTHALENES+INT.  L 0.0036 UGM./M+3
ANTHRACENE-PHENANTHRENE   2 0.00051 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.0026 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0064 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.027 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.0095 UGM./M+3
DIHYDROXYBENZENES         1 0.030 UGM./M+3
BENZOQUINONE              L 0.0040 UGM./M+3

PHENOL                    1 0.020 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.0085 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.0052 UGM./M+3
TRIMETHYL BENZOIC ISOM. EST 0.0031 UGM./M+3
PENTANDIOIC ACID       EST. 0.32 UGM./M+3
HEXANDIOIC ACID           4 0.18 UGM./M+3

METHYLHEXANDIOIC ACID     1 0.070 UGM./M+3
BENZOYL ION (ARBITRARY)     0.038 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.092 UGM./M+3
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     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.17 UGM./M↑3
CONH FRAGMENT (RELATIVE)    0.86 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.014 UGM./M↑3
C4H8N2 FRAGMENT (RELATIVE)  0.012 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.011 UGM./M↑3

PIPERIDINES (+ISOMERS)  EST 0.0012 UGM./M↑3
CARBAZOLE                 L 0.00092 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.00082 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         0.18 UGM./M↑3
C7H12O3 ISOMERS         EST 0.012 UGM./M↑3
C6H10O3 ISOMERS         EST 0.022 UGM./M↑3
C7H12O2 ISOMERS         EST 0.024 UGM./M↑3
C5H10O3 ISOMERS         EST 0.035 UGM./M↑3

HCO(CH2)3COONO2+ISOMERS EST 0.018 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.25 UGM./M↑3
C6H8O2 ISOMERS          EST 0.10 UGM./M↑3
C7H10O2 ISOMERS         EST 0.024 UGM./M↑3
C5H8O3 ISOMERS          EST 0.011 UGM./M↑3
C6H8O4 ISOMERS          EST 0.011 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.011 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 12. UGM./M↑3
AMMONIUM CHLORIDE         3 0.039 UGM./M↑3
AMMONIUM NITRATE          2 0.12 UGM./M↑3
SODIUM NITRATE            1 0.18 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.018 UGM./M↑3
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TYSON VALLEY 1800 8/19/74 - 2400 8/19/74 CDT    :

 SLT 62 6 HRS 1800-2400
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0106 TO RUN 0140
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 465E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.41 UGM./M+3
ALKANES LOW MW           CL 0.20 UGM./M+3
ALKANES MED. MW          CL 0.053 UGM./M+3
TOTAL ALKENES               0.29 UGM./M+3
ALKENES LOW MW           CL 0.036 UGM./M+3

ALKENES MED. MW          CL 0.13 UGM./M+3
ALKENES HI MW            CL 0.039 UGM./M+3
TERPENES AS PINENE       CL 0.10 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.15 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.013 UGM./M+3

ALKYL BENZENES C9H12     CL 0.12 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.014 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.036 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.092 UGM./M+3
DIHYDROXYBENZENES         1 0.029 UGM./M+3
PHENOL                    1 0.014 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.031 UGM./M+3
PENTANDIOIC ACID       EST. 1.0 UGM./M+3
HEXANDIOIC ACID           4 0.39 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.33 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.63 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.15 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.0 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.24 UGM./M+3
C6H8O2 ISOMERS          EST 0.27 UGM./M+3
C7H10O2 ISOMERS         EST 0.28 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
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     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 33. UGM./M+3
AMMONIUM CHLORIDE         3 0.19 UGM./M+3
AMMONIUM NITRATE          2 0.24 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.58 UGM./M+3
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TYSON VALLEY 0000 8/20/74 - 0300 8/20/74 CDT

 SLT 63 3 HRS 0000-0300
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0071 TO RUN 0105
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 234E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 0.27 UGM./M↑3
ALKANES LOW MW            CL 0.091 UGM./M↑3
ALKANES MED. MW           CL 0.068 UGM./M↑3
TOTAL ALKENES                0.54 UGM./M↑3
ALKENES MED. MW           CL 0.11 UGM./M↑3

ALKENES HI MW             CL 0.051 UGM./M↑3
ALPHA PINENE                 0.31 UGM./M↑3
TERPENES AS PINENE        CL 0.20 UGM./M↑3
XYLENES,MON SUB BENZENES CL 0.24 UGM./M↑3
XYLENES, ETHYL BENZENE    CL 0.045 UGM./M↑3

ALKYL BENZENES C9H12      CL 0.64 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.0078 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.039 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.093 UGM./M↑3
DIHYDROXYBENZENES          1 0.022 UGM./M↑3
PHENOL                     1 0.031 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.018 UGM./M↑3
PENTANDIOIC ACID        EST. 2.4 UGM./M↑3
HEXANDIOIC ACID            4 1.5 UGM./M↑3
BENZOYL ION (ARBITRARY)      0.14 UGM./M↑3
ACIDS (AS ACETIC ACID)   EST 0.75 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.084 UGM./M↑3
CONH FRAGMENT (RELATIVE)     1.6 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.11 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          2.6 UGM./M↑3
C7H12O3 ISOMERS          EST 0.18 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.18 UGM./M↑3
C6H8O2 ISOMERS           EST 0.33 UGM./M↑3
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     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 5.2 UGM./M↑3
AMMONIUM CHLORIDE         3 0.17 UGM./M↑3
AMMONIUM NITRATE          2 0.38 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)     EST 0.13 UGM./M↑3
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TYSON VALLEY 0300 8/20/74 - 0700 8/20/74 CDT

 SLT 64 0300-0700 4 HRS
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0518 TO RUN 0550
DATE 080875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 312E +1 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 140E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.46 UGM./M+3
ALKANES LOW MW             CL 0.19 UGM./M+3
ALKANES MED. MW            CL 0.11 UGM./M+3
TOTAL ALKENES                 0.33 UGM./M+3
ALKENES LOW MW             CL 0.080 UGM./M+3

ALKENES MED. MW            CL 0.11 UGM./M+3
ALKENES HI MW              CL 0.049 UGM./M+3
TERPENES AS PINENE         CL 0.13 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.16 UGM./M+3
XYLENES, ETHYL BENZENE     CL 0.031 UGM./M+3

ALKYL BENZENES C9H12       CL 0.63 UGM./M+3
ALKYL BENZENES C10H14      CL 0.027 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.0053 UGM./M+3
METHYL NAPHTHALENES+INT.    L 0.028 UGM./M+3
DIBENZANTHRACENES C22H14    E 0.031 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.016 UGM./M+3
PHENOL+NO2,CHO,CO2H?    EST. 0.10 UGM./M+3
DIHYDROXYBENZENES           1 0.057 UGM./M+3
BENZALDEHYDE (+INTERF.)     L 0.0063 UGM./M+3
PHENOL                      1 0.023 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.33 UGM./M+3
PENTANDIOIC ACID         EST. 1.7 UGM./M+3
HEXANDIOIC ACID             4 1.7 UGM./M+3
BENZOYL ION (ARBITRARY)       0.47 UGM./M+3
ACIDS (AS ACETIC ACID)    EST 0.62 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)      0.73 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)    0.40 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)    0.066 UGM./M+3
PYRIDINE + PYRIDYL CPDS     L 0.010 UGM./M+3
PYRIDINE SULFATE          EST 0.044 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)           2.0 UGM./M+3
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C7H12O2 ISOMERS          EST 0.10 UGM./M↑3.
C5H10O2 ISOMERS          EST 0.074 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS           EST 0.48 UGM./M↑3
C6H8O2 ISOMERS           EST 0.074 UGM./M↑3
C5H8O3 ISOMERS           EST 0.10 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C10H14O3 ISOMERS         EST 0.34 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 1.3 UGM./M↑3
AMMONIUM CHLORIDE           3 0.16 UGM./M↑3
AMMONIUM NITRATE            2 0.041 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
ISODRIN                  EST 0.046 UGM./M↑3
LINDANE                  EST 0.020 UGM./M↑3
C5H5CL (HEPTACHLOR?)     EST 0.037 UGM./M↑3
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TYSON VALLEY 0700 8/20/74 - 0900 8/20/74 CDT

 SLT 65 2.0 HRS 0700-0900
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0176 TO RUN 0210
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 156E +1 CUBIC METERS, ALIQUOT=0. 200E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES                CL 0.46 UGM./M+3
ALKANES LOW MW               CL 0.090 UGM./M+3
ALKANES MED. MW              CL 0.18 UGM./M+3
ALKANES HI MW                CL 0.077 UGM./M+3
TOTAL ALKENES                   0.60 UGM./M+3

ALKENES LOW MW               CL 0.015 UGM./M+3
ALKENES MED. MW              CL 0.21 UGM./M+3
ALKENES HI MW                CL 0.17 UGM./M+3
ALPHA PINENE                    0.79 UGM./M+3
TERPENES AS PINENE           CL 0.32 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.23 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.061 UGM./M+3
ALKYL BENZENES C9H12     CL 1.1 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                    1 0.0074 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.025 UGM./M+3
DIHYDROXYBENZENES            1 0.020 UGM./M+3
BENZOQUINONE                 L 0.027 UGM./M+3
PHENOL                       1 0.010 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                   2 0.016 UGM./M+3
PENTANDIOIC ACID          EST. 1.1 UGM./M+3
HEXANDIOIC ACID                4 2.0 UGM./M+3
BENZOYL ION (ARBITRARY)         0.26 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.66 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     1.2 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.096 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.040 UGM /M+3
PYRIDINE SULFATE        EST 0.29 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          7.9 UGM./M+3
C5H10O3 ISOMERS         EST 0.17 UGM./M+3
HOOC(CH2)5ONO2          EST 0.66 UGM./M+3
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PAGE 002.

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.17 UGM./M+3
C6H8O2 ISOMERS          EST 0.66 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 2.5 UGM./M+3
AMMONIUM CHLORIDE         3 0.14 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.10 UGM./M+3
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TYSON VALLEY 0900 8/20/74 - 1100 8/20/74 CDT

 SLT 66 2.0HRS 0900-1100
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0211 TO RUN 0245
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 156E +1 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.39 UGM./M↑3
ALKANES LOW MW              CL 0.16 UGM./M↑3
ALKANES MED. MW             CL 0.14 UGM./M↑3
ALKANES HI MW               CL 0.017 UGM./M↑3
TOTAL ALKENES                  0.57 UGM./M↑3

ALKENES LOW MW              CL 0.085 UGM./M↑3
ALKENES MED. MW             CL 0.19 UGM./M↑3
ALKENES HI MW               CL 0.14 UGM./M↑3
ALPHA PINENE                   0.22 UGM./M↑3
TERPENES AS PINENE          CL 0.22 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.33 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.075 UGM./M↑3
ALKYL BENZENES C9H12     CL 1.0 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.013 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.046 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.043 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.33 UGM./M↑3
DIHYDROXYBENZENES           1 0.072 UGM./M↑3
BENZALDEHYDE (+INTERF )   L 0.0062 UGM./M↑3

PHENOL                      1 0.010 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
ETHYL BENZOIC ISOMERS  EST. 0.030 UGM./M↑3
PENTANDIOIC ACID       EST. 2.2 UGM./M↑3
HEXANDIOIC ACID             4 0.21 UGM./M↑3
METHYLHEXANDIOIC ACID       1 0.42 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 0.77 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     1.7 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.16 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.014 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.048 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          2.7 UGM./M↑3
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     CPD. FILE 0057, DATE 082575.  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.61 UGM./M↑3

     CPD. FILE 0058, DATE 082575.  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.5 UGM./M↑3
AMMONIUM CHLORIDE         3 0.15 UGM./M↑3
AMMONIUM NITRATE          2 0.43 UGM./M↑3

     CPD. FILE 0060, DATE 082575.  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.41 UGM./M↑3
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TYSON VALLEY 1100 8/20/74 - 1300 8/20/74 CDT

 SLT 67 2.0 HRS 1100-1300
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0246 TO RUN 0280
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 156E +1 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.41 UGM./M+3
ALKANES LOW MW             CL 0.14 UGM./M+3
ALKANES MED. MW            CL 0.13 UGM./M+3
ALKANES HI MW              CL 0.022 UGM./M+3
TOTAL ALKENES                 0.60 UGM./M+3

ALKENES LOW MW             CL 0.028 UGM./M+3
ALKENES MED. MW            CL 0.21 UGM./M+3
ALKENES HI MW              CL 0.039 UGM./M+3
ALPHA PINENE                  0.19 UGM./M+3
TERPENES AS PINENE         CL 0.24 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.33 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.034 UGM./M+3
ALKYL BENZENES C9H12     CL 0.65 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
METHYL NAPHTHALENES+INT.  L 0.0097 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.053 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.10 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.14 UGM./M+3
DIHYDROXYBENZENES         1 0.046 UGM./M+3
PHENOL                    1 0.023 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
PENTANDIOIC ACID       EST. 1.6 UGM./M+3
HEXANDIOIC ACID           4 2.1 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.19 UGM./M+3
BENZOYL ION (ARBITRARY)     0.20 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.74 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.58 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.23 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.015 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.040 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         3.4 UGM./M+3
C6H12O3 ISOMERS         EST 0.16 UGM./M+3
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     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.38 UGM./M+3
C6H8O2 ISOMERS          EST 0.56 UGM./M+3
C7H7NO4 ISOMERS         EST 0.046 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 15.  UGM./M+3
AMMONIUM CHLORIDE         3 0.071 UGM./M+3
AMMONIUM NITRATE          2 0.41 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
ISODRIN                 EST 0.64 UGM./M+3
LINDANE                 EST 2.2 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.80 UGM./M+3
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TYSON VALLEY 1300 8/20/74 - 1500 8/20/74 CD

 SLT 68 2.0 HRS 1300-1500
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0281 TO RUN 0315
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 156E +1 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.45 UGM./M+3
ALKANES LOW MW              CL 0.17 UGM./M+3
ALKANES MED. MW             CL 0.13 UGM./M+3
ALKANES HI MW               CL 0.012 UGM./M+3
TOTAL ALKENES                  0.44 UGM./M+3

ALKENES LOW MW              CL 0.054 UGM./M+3
ALKENES MED. MW             CL 0.17 UGM./M+3
ALKENES HI MW               CL 0.055 UGM./M+3
ALPHA PINENE                   0.46 UGM./M+3
TERPENES AS PINENE          CL 0.18 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.20 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.060 UGM./M+3
ALKYL BENZENES C9H12     CL 0.81 UGM./M+3
ALKYL BENZENES C10H14    CL 0.060 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.033 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.15 UGM./M+3
DIHYDROXYBENZENES         1 0.046 UGM./M+3
BENZALDEHYDE (+INTERF.)   L 0.019 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.024 UGM./M+3
PENTANDIOIC ACID       EST. 1.3 UGM./M+3
HEXANDIOIC ACID           4 0.51 UGM./M+3
BENZOYL ION (ARBITRARY)     0.19 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.45 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.15 UGM./M+3
CONH FRAGMENT (RELATIVE)    0.79 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.16 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.010 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.055 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         11. UGM./M+3
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     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.38 UGM./M+3
C6H8O2 ISOMERS          EST 0.30 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 9.4 UGM./M+3
AMMONIUM CHLORIDE         3 0.15 UGM./M+3
AMMONIUM NITRATE          2 0.15 UGM./M+3
SODIUM NITRATE            1 0.053 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 1.1 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.46 UGM./M+3
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TYSON VALLEY 1500 8/20/74 - 1800 8/20/74 CDT

 SLT 69
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0316 TO RUN 0350
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 234E +1 CUBIC METERS, ALIQUOT=0. 200E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.28 UGM./M+3
ALKANES LOW MW              CL 0.089 UGM./M+3
ALKANES MED. MW             CL 0.073 UGM./M+3
TOTAL ALKENES                  0.37 UGM./M+3
ALKENES LOW MW              CL 0.021 UGM./M+3

ALKENES MED. MW             CL 0.12 UGM./M+3
ALKENES HI MW               CL 0.064 UGM./M+3
ALPHA PINENE                   0.28 UGM./M+3
TERPENES AS PINENE          CL 0.16 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.17 UGM./M+3

XYLENES, ETHYL BENZENE      CL 0.022 UGM./M+3
ALKYL BENZENES C9H12        CL 0.48 UGM./M+3
ALKYL BENZENES C10H14       CL 0.050 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.0049 UGM./M+3
METHYL NAPHTHALENES+INT.     L 0.0071 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.032 UGM./M+3
PHENOL+NO2,CHO,CO2H?     EST. 0.10 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.14 UGM./M+3
DIHYDROXYBENZENES            1 0.041 UGM./M+3
BENZALDEHYDE (+INTERF.)      L 0.010 UGM./M+3

PHENOL                       1 0.040 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.026 UGM /M+3
PENTANDIOIC ACID         EST. 2.1 UGM./M+3
HEXANDIOIC ACID              4 2.6 UGM./M+3
METHYLHEXANDIOIC ACID        1 0.41 UGM./M+3
BENZOYL ION (ARBITRARY)        0.11 UGM./M+3

ACIDS (AS ACETIC ACID)   EST 0.47 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)       0.43 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.45 UGM./M+3
C4H8N2 FRAGMENT (RELATIVE)  0.064 UGM /M+3
PYRIDINE + PYRIDYL CPDS      L 0.017 UGM /M+3
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PIPERIDINES (+ISOMERS)  EST 0.051 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          4.1 UGM./M+3
C5H10O2 ISOMERS         EST 0.085 UGM./M+3
HOOC(CH2)4ONO2          EST 0.10 UGM./M+3
HOOC(CH2)3COONO2        EST 0.15 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.064 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.35 UGM./M+3
C6H8O2 ISOMERS          EST 0.22 UGM./M+3
C7H7NO4 ISOMERS         EST 0.057 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 19  UGM./M+3
AMMONIUM CHLORIDE         3 0.11 UGM./M+3
AMMONIUM NITRATE          2 0.59 UGM./M+3
SODIUM NITRATE            1 0.010 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 1.7 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.23 UGM./M+3
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TYSON VALLEY 1800 8/20/74 - 2100 8/20/74 CDT

 SLT 70 3.0 HRS 1800-2100
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0351 TO RUN 0385
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 234E +1 CUBIC METERS, ALIQUOT=0. 280E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.34 UGM./M↑3
ALKANES LOW MW           CL 0.14 UGM./M↑3
ALKANES MED. MW          CL 0.063 UGM./M↑3
TOTAL ALKENES               0.34 UGM./M↑3
ALKENES LOW MW           CL 0.054 UGM./M↑3

ALKENES MED. MW          CL 0.15 UGM./M↑3
ALKENES HI MW            CL 0.036 UGM./M↑3
ALPHA PINENE                0.30 UGM./M↑3
TERPENES AS PINENE       CL 0.16 UGM./M↑3
XYLENES,MON SUB BENZENES CL 0.24 UGM./M↑3

XYLENES, ETHYL BENZENE   CL 0.0089 UGM./M↑3
ALKYL BENZENES C9H12     CL 0.30 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.023 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.010 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0036 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.028 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.19 UGM./M↑3
DIHYDROXYBENZENES         1 0.076 UGM./M↑3
PHENOL                    1 0.0064 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.019 UGM./M↑3
PENTANDIOIC ACID       EST. 1.9 UGM./M↑3
HEXANDIOIC ACID           4 1.1 UGM./M↑3
METHYLHEXANDIOIC ACID     1 0.19 UGM./M↑3
BENZOYL ION (ARBITRARY)     0.080 UGM./M↑3

ACIDS (AS ACETIC ACID)  EST 0.37 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    0.085 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.46 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.078 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.084 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.10 UGM./M↑3
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     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         2.5 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.085 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.64 UGM./M↑3
C6H8O2 ISOMERS          EST 0.12 UGM./M↑3
C7H10O2 ISOMERS         EST 0.32 UGM./M↑3
C7H7NO4 ISOMERS         EST 0.020 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 18. UGM./M↑3
AMMONIUM CHLORIDE         3 0.073 UGM./M↑3
AMMONIUM NITRATE          2 0.45 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.33 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.27 UGM./M↑3
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TYSON VALLEY 2100 8/20/74 - 2400 8/20/74 CDT

 SLT 71 2100-2400
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0551 TO RUN 0585
DATE 080875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 234E +1 CUBIC METERS, ALIQUOT=0. 370E +0
INST. SENSITIVITY=0. 140E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.69 UGM./M+3
ALKANES LOW MW           CL 0.27 UGM./M+3
ALKANES MED. MW          CL 0.16 UGM./M+3
ALKANES HI MW            CL 0.061 UGM./M+3
TOTAL ALKENES               0.51 UGM./M+3

ALKENES LOW MW           CL 0.064 UGM./M+3
ALKENES MED. MW          CL 0.13 UGM./M+3
ALKENES HI MW            CL 0.17 UGM./M+3
ALPHA PINENE                0.48 UGM./M+3
TERPENES AS PINENE       CL 0.19 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.19 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.016 UGM./M+3
ALKYL BENZENES C9H12     CL 0.62 UGM./M+3
ALKYL BENZENES C10H14    CL 0.019 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.018 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.092 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0057 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.11 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.035 UGM./M+3
DIHYDROXYBENZENES         1 0.081 UGM./M+3
PHENOL                    1 0.035 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.36 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.030 UGM./M+3
PENTANDIOIC ACID       EST. 2.3 UGM./M+3
HEXANDIOIC ACID           4 3.0 UGM./M+3
METHYLHEXANDIOIC ACID     1 0.23 UGM./M+3

BENZOYL ION (ARBITRARY)     0.65 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.66 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.083 UGM./M+3
CONH FRAGMENT (RELATIVE)    1.1 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.68 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.0060 UGM./M+3
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PIPERIDINES (+ISOMERS)  EST 0.13 UGM./M+3
PYRIDINE SULFATE        EST 0.066 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         3.1 UGM./M+3
C6H12O3 ISOMERS         EST 0.083 UGM./M+3
C6H10O3 ISOMERS         EST 0.13 UGM./M+3
C5H10O3 ISOMERS         EST 0.11 UGM./M+3
HOOC(CH2)3COONO2        EST 0.083 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.68 UGM./M+3
C6H8O2 ISOMERS          EST 0.86 UGM./M+3
C7H10O2 ISOMERS         EST 0.099 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 12.  UGM./M+3
AMMONIUM CHLORIDE         3 0.32 UGM./M+3
AMMONIUM NITRATE          2 0.70 UGM./M+3
SODIUM NITRATE            1 0.051 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.12 UGM./M+3
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TYSON VALLEY 0000 8/21/74 - 0700 8/21/74 CDT

 SLT 72 7.0 HRS   0-700
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0421 TO RUN 0455
DATE 032575, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 546E +1 CUBIC METERS, ALIQUOT=0. 190E +0
INST. SENSITIVITY=0. 215E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 0.14 UGM./M+3
ALKANES LOW MW              CL 0.063 UGM./M+3
ALKANES MED. MW             CL 0.027 UGM./M+3
TOTAL ALKENES                  0.19 UGM./M+3
ALKENES LOW MW              CL 0.039 UGM./M+3

ALKENES MED. MW             CL 0.060 UGM./M+3
ALKENES HI MW               CL 0.019 UGM./M+3
ALPHA PINENE                   0.11 UGM./M+3
TERPENES AS PINENE          CL 0.089 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.097 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.0056 UGM./M+3
ALKYL BENZENES C9H12     CL 0.28 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.012 UGM./M+3
DIHYDROXYBENZENES          1 0.020 UGM./M+3
PHENOL                     1 0.0036 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
PENTANDIOIC ACID        EST. 1.5 UGM./M+3
HEXANDIOIC ACID            4 1.5 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.12 UGM./M+3
BENZOYL ION (ARBITRARY)      0.082 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 0.21 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.054 UGM./M+3
CONH FRAGMENT (RELATIVE)     0.26 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.045 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.097 UGM./M+3
QUINOLINE (-INTERFER?)     L 0.0036 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H503 (PHTHALATES)           3.5 UGM./M+3
C6H1003 ISOMERS          EST 0.058 UGM./M+3
HOOC(CH2)5ONO2           EST 0.13 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H602 ISOMERS           EST 0.17 UGM./M+3
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C6H8O2 ISOMERS          EST 0.26 UGM./M+3

     CPD. FILE 0058, DATE 082575.  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 14.  UGM./M+3
AMMONIUM CHLORIDE         3 0.053 UGM./M+3
AMMONIUM NITRATE          2 0.47 UGM./M+3
SODIUM NITRATE            1 0.012 UGM./M+3

     CPD. FILE 0060, DATE 082575.  CHLORINATED COMPOUNDS
LINDANE                 EST 0.39 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.26 UGM./M+3
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SEATTLE 0825 10/17/74 TO 1135 10/17/74 PDT

 SEU3 101774  0825-1135
FILE NO. 0002, FIT TOL. 003 (MILLIMASS) RUN 0246 TO RUN 0280
DATE 031875, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 480E +1 CUBIC METERS, ALIQUOT=0. 930E -1
INST. SENSITIVITY=0. 300E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 0.68 UGM./M+3
ALKANES LOW MW             CL 0.13 UGM./M+3
ALKANES MED. MW            CL 0.42 UGM./M+3
ALKANES HI MW              CL 0.055 UGM./M+3
TOTAL ALKENES                 1.0 UGM./M+3

ALKENES LOW MW             CL 0.094 UGM./M+3
ALKENES MED. MW            CL 0.54 UGM./M+3
ALKENES HI MW              CL 0.28 UGM./M+3
ALPHA PINENE                  1.3 UGM./M+3
TERPENES AS PINENE         CL 0.42 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.31 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.088 UGM./M+3
ALKYL BENZENES C9H12     CL 1.8 UGM./M+3
ALKYL BENZENES C10H14    CL 0.019 UGM./M+3
DIPHENYL METHANE+ISOMERS CL 0.032 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.033 UGM./M+3
ANTHRACENE-PHENANTHRENE    2 0.010 UGM./M+3
PYRENE & ISOMERS C16H10    L 0.015 UGM./M+3
CHRYSENE, ISOMERS C18H12   L 0.013 UGM./M+3
PERYLENE, ISOMERS C20H12   L 0.010 UGM./M+3

CORONENE?                  E 0.022 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.037 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.11 UGM./M+3
TRIMETHYLPHENOL+ISOMERS EST 0.045 UGM./M+3
DIHYDROXYBENZENES          1 0.093 UGM./M+3
BENZALDEHYDE (+INTERF.)    L 0.028 UGM./M+3

PHENOL                     1 0.040 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.024 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.023 UGM./M+3
PENTANDIOIC ACID       EST. 0.91 UGM./M+3
HEXANDIOIC ACID            4 1.0 UGM./M+3
METHYLHEXANDIOIC ACID      1 0.083 UGM./M+3
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PAGE 002.
BENZOYL ION (ARBITRARY)      0.26 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 1.3 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.11 UGM./M↑3
CONH FRAGMENT (RELATIVE)    0.082 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.15 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.0040 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.051 UGM./M↑3

CARBAZOLE                 L 0.0062 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.011 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          2.6 UGM./M↑3
C6H10O3 ISOMERS         EST 0.11 UGM./M↑3
C5H10O3 ISOMERS         EST 0.12 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.090 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.78 UGM./M↑3
C6H8O2 ISOMERS          EST 0.42 UGM./M↑3
C7H10O2 ISOMERS         EST 0.090 UGM./M↑3
C6H8O4 ISOMERS          EST 0.082 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 4.6 UGM./M↑3
AMMONIUM CHLORIDE         3 0.47 UGM./M↑3
AMMONIUM NITRATE          2 1.7 UGM./M↑3
SODIUM NITRATE            1 0.020 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.12 UGM./M↑3
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SEATTLE 1140 10/17/74 TO 1630 10/17/74 PDT

 SEU 4
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0826 TO RUN 0860
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 730E +1 CUBIC METERS, ALIQUOT=0. 800E -1
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 1.1 UGM./M+3
ALKANES LOW MW             CL 0.20 UGM./M+3
ALKANES MED. MW            CL 0.44 UGM./M+3
ALKANES HI MW              CL 0.16 UGM./M+3
TOTAL ALKENES                 1.5 UGM./M+3

ALKENES LOW MW             CL 0.17 UGM./M+3
ALKENES MED. MW            CL 0.67 UGM./M+3
ALKENES HI MW              CL 0.43 UGM./M+3
TERPENES AS PINENE         CL 0.60 UGM./M+3
XYLENES,MON SUB BENZENES CL 0.36 UGM./M+3

XYLENES, ETHYL BENZENE   CL 0.045 UGM /M+3
ALKYL BENZENES C9H12     CL 1.4 UGM./M+3
ALKYL BENZENES C10H14    CL 0.069 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.029 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.058 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST. 0.11 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.54 UGM./M+3
BENZOYL ION (ARBITRARY)       1.4 UGM./M+3
ACIDS (AS ACETIC ACID)  EST 1.1 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.40 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.88 UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 0.053 UGM /M+3
PIPERIDINES (+ISOMERS)  EST 0.099 UGM /M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          6.9 UGM./M+3
HOOC(CH2)4ONO2          EST 0.47 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C5H8O3 ISOMERS          EST 0.44 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
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PAGE 002.

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 15. UGM./M+3
AMMONIUM CHLORIDE         3 0.50 UGM./M+3
AMMONIUM NITRATE          2 2.5 UGM./M+3
SODIUM NITRATE            1 0.072 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.93 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 1.1 UGM./M+3
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SEATTLE 1640 10/17/74 TO 2200 10/17/74 PDT

 SEU 5
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0861 TO RUN 0895
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 800E +1 CUBIC METERS, ALIQUOT=0. 160E +0
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 1.2 UGM./M↑3
ALKANES LOW MW             CL 0.19 UGM./M↑3
ALKANES MED. MW            CL 0.58 UGM./M↑3
ALKANES HI MW              CL 0.060 UGM./M↑3
TOTAL ALKENES                 1.7 UGM./M↑3

ALKENES LOW MW             CL 0.24 UGM./M↑3
ALKENES MED. MW            CL 0.82 UGM./M↑3
ALKENES HI MW              CL 0.41 UGM./M↑3
ALPHA PINENE                  1.2 UGM./M↑3
TERPENES AS PINENE         CL 0.43 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.36 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.21 UGM./M↑3
ALKYL BENZENES C9H12     CL 2.1 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.039 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.018 UGM./M↑3
METHYL NAPHTHALENES+INT.   L 0.018 UGM./M↑3
PYRENE & ISOMERS C16H10    L 0.0094 UGM./M↑3
PERYLENE, ISOMERS C20H12   L 0.048 UGM./M↑3
BENZOPERYLENE+INTERFER.    E 0.10 UGM./M↑3

DIBENZANTHRACENES C22H14   E 0.056 UGM./M↑3
CORONENE?                  E 0.050 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.021 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.20 UGM./M↑3
DIHYDROXYBENZENES          1 0.097 UGM./M↑3
BENZOQUINONE               L 0.070 UGM./M↑3
BENZALDEHYDE (+INTERF.)    L 0.019 UGM./M↑3

PHENOL                     1 0.026 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.073 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.062 UGM./M↑3
PENTANDIOIC ACID       EST. 0.48 UGM./M↑3
HEXANDIOIC ACID            4 0.96 UGM./M↑3
METHYLHEXANDIOIC ACID      1 1.2 UGM./M↑3
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PAGE 002.
BENZOYL ION (ARBITRARY)      0.52 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 1.4 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     0.57 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.38 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.20 UGM./M↑3
CARBAZOLE                   L 0.027 UGM./M↑3
ACRIDINE & ISOMERS          L 0.010 UGM./M↑3

PYRIDINE SULFATE        EST 0.089 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)          6.5 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.26 UGM./M↑3
HCO(CH2)5COONO2+ISOMERS EST 0.16 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.82 UGM./M↑3
C6H8O2 ISOMERS          EST 0.62 UGM./M↑3
C7H10O2 ISOMERS         EST 0.31 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 7.4 UGM./M↑3
AMMONIUM CHLORIDE         3 0.93 UGM./M↑3
AMMONIUM NITRATE          2 2.8 UGM./M↑3
SODIUM NITRATE            1 0.21 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.34 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.72 UGM./M↑3
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SEATTLE 2210 10/17/74 TO 0910 10/18/74 PDT

 SEU 6
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0896 TO RUN 0930
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 165E +2 CUBIC METERS, ALIQUOT=0. 800E -1
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 0.99 UGM./M↑3
ALKANES LOW MW            CL 0.24 UGM./M↑3
ALKANES MED. MW           CL 0.39 UGM./M↑3
ALKANES HI MW             CL 0.083 UGM./M↑3
TOTAL ALKENES                1.3 UGM./M↑3

ALKENES LOW MW            CL 0.16 UGM./M↑3
ALKENES MED. MW           CL 0.53 UGM./M↑3
ALKENES HI MW             CL 0.41 UGM./M↑3
ALPHA PINENE                 1.4 UGM./M↑3
TERPENES AS PINENE        CL 0.41 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.38 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.10 UGM./M↑3
ALKYL BENZENES C9H12     CL 1.6 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.15 UGM./M↑3
DIPHENYL ETHANE & ISOMERS L 0.040 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                 1 0.054 UGM./M↑3
METHYL NAPHTHALENES+INT.  L 0.019 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.016 UGM./M↑3
PERYLENE, ISOMERS C20H12  L 0.026 UGM./M↑3
BENZOPERYLENE+INTERFER.   E 0.043 UGM./M↑3

DIBENZANTHRACENES C22H14  E 0.052 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.0091 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.070 UGM./M↑3
DIHYDROXYBENZENES           1 0.17 UGM./M↑3
PHENOL                      1 0.0081 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                2 0.13 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.046 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.046 UGM./M↑3
PENTANDIOIC ACID       EST. 0.86 UGM./M↑3
HEXANDIOIC ACID             4 1.1 UGM./M↑3

BENZOYL ION (ARBITRARY)      0.65 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 2.5 UGM./M↑3
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PAGE 002.

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    1.1 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.21 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.52 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.11 UGM./M↑3
CARBAZOLE                 L 0.042 UGM./M↑3

QUINOLINE (-INTERFER?)    L 0.036 UGM./M↑3
PYRIDINE SULFATE        EST 0.37 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         1.3 UGM./M↑3
C5H10O2 ISOMERS         EST 0.21 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.4 UGM./M↑3
C6H8O2 ISOMERS          EST 0.14 UGM./M↑3
C5H8O3 ISOMERS          EST 0.11 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 6.2 UGM./M↑3
AMMONIUM CHLORIDE         3 1.1 UGM./M↑3
AMMONIUM NITRATE          2 7.0 UGM./M↑3
SODIUM NITRATE            1 0.090 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 0.65 UGM./M↑3
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SEATTLE 0920 10/18/74 TO 1600 10/18/74 PDT

 SEU 7
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0931 TO RUN 0965
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 103E +2 CUBIC METERS, ALIQUOT=0. 160E +0
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 0.89 UGM./M↑3
ALKANES LOW MW           CL 0.13 UGM./M↑3
ALKANES MED. MW          CL 0.52 UGM./M↑3
ALKANES HI MW            CL 0.11 UGM./M↑3
TOTAL ALKENES               1.6 UGM./M↑3

ALKENES LOW MW           CL 0.13 UGM./M↑3
ALKENES MED. MW          CL 0.73 UGM./M↑3
ALKENES HI MW            CL 0.60 UGM./M↑3
ALPHA PINENE                1.7 UGM./M↑3
TERPENES AS PINENE       CL 0.71 UGM./M↑3

XYLENES,MON SUB BENZENES CL 0.54 UGM./M↑3
XYLENES, ETHYL BENZENE   CL 0.11 UGM./M↑3
ALKYL BENZENES C9H12     CL 2.1 UGM./M↑3
ALKYL BENZENES C10H14    CL 0.11 UGM./M↑3
BIPHENYL                  1 0.012 UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE               1 0.085 UGM./M↑3
ALKYL NAPHTHALENES C12H12 L 0.040 UGM./M↑3
ANTHRACENE-PHENANTHRENE   2 0.0053 UGM./M↑3
PYRENE & ISOMERS C16H10   L 0.11 UGM./M↑3
PERYLENE, ISOMERS C20H12  L 0.016 UGM./M↑3

BENZOPERYLENE+INTERFER.   E 0.039 UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.091 UGM./M↑3
PHENOL+NO2,CHO,CO2H?   EST. 0.43 UGM./M↑3
TRIMETHYLPHENOL+ISOMERS EST 0.044 UGM./M↑3
DIHYDROXYBENZENES         1 0.23 UGM./M↑3
BENZALDEHYDE (+INTERF.)   L 0.018 UGM./M↑3

PHENOL                    1 0.10 UGM./M↑3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID              2 0.12 UGM./M↑3
METHYL BENZOIC ISOMERS EST. 0.11 UGM./M↑3
ETHYL BENZOIC ISOMERS  EST. 0.17 UGM./M↑3
TRIMETHYL BENZOIC ISOM. EST 0.067 UGM./M↑3
PENTANDIOIC ACID       EST. 3.1 UGM./M↑3
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PAGE 002.
HEXANDIOIC ACID             4 4.1 UGM./M↑3
METHYLHEXANDIOIC ACID       1 2.8 UGM./M↑3
BENZOYL ION (ARBITRARY)       0.97 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 2.6 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)    0.40 UGM./M↑3
CONH FRAGMENT (RELATIVE)     1.3 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.29 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.078 UGM./M↑3
C4H9N2 FRAGMENT (RELATIVE)  0.15 UGM./M↑3

PYRIDINE + PYRIDYL CPDS   L 0.0069 UGM./M↑3
PIPERIDINES (+ISOMERS)  EST 0.13 UGM./M↑3
CARBAZOLE                 L 0.013 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.049 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)           4.3 UGM./M↑3
C6H10O4 (ADIPIC ACID)   DUP 2.0 UGM./M↑3
C6H10O3 ISOMERS         EST 0.57 UGM./M↑3
C5H10O2 ISOMERS         EST 0.16 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.28 UGM./M↑3

HCO(CH2)4COONO          EST 0.10 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.9 UGM./M↑3
C6H8O2 ISOMERS          EST 2.0 UGM./M↑3
C7H10O2 ISOMERS         EST 0.46 UGM./M↑3
C5H8O3 ISOMERS          EST 0.50 UGM./M↑3
C6H8O4 ISOMERS          EST 0.10 UGM./M↑3

C7H7NO4 ISOMERS         EST 0.015 UGM./M↑3
NITROCRESOLS?             L 0.015 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O2 ISOMERS         EST 0.11 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 10. UGM./M↑3
AMMONIUM CHLORIDE         3 0.60 UGM./M↑3
AMMONIUM NITRATE          2 10. UGM./M↑3
SODIUM NITRATE            1 0.34 UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.16 UGM./M↑3
C5H5CL (HEPTACHLOR?)    EST 0.72 UGM./M↑3
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SEATTLE 1620 10/18/74 TO 2300 10/18/74 PDT

 SEU 8
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0036 TO RUN 0070
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 999E +1 CUBIC METERS, ALIQUOT=0. 800E -1
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES              CL 2.2 UGM./M+3
ALKANES LOW MW             CL 0.71 UGM./M+3
ALKANES MED. MW            CL 0.93 UGM./M+3
ALKANES HI MW              CL 0.28 UGM./M+3
TOTAL ALKENES                 2.9 UGM./M+3

ALKENES LOW MW             CL 0.56 UGM./M+3
ALKENES MED. MW            CL 1.3 UGM./M+3
ALKENES HI MW              CL 0.86 UGM./M+3
ALPHA PINENE                  2.2 UGM./M+3
TERPENES AS PINENE         CL 0.99 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.76 UGM./M+3
XYLENES, ETHYL BENZENE   CL 0.23 UGM./M+3
ALKYL BENZENES C9H12     CL 4.8 UGM./M+3
ALKYL BENZENES C10H14    CL 0.076 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                  1 0.12 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.065 UGM./M+3
PYRENE & ISOMERS C16H10   L 0.037 UGM./M+3
CHRYSENE, ISOMERS C18H12  L 0.062 UGM./M+3
DIBENZANTHRACENES C22H14  E 0.20 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST 0.34 UGM./M+3
DIHYDROXYBENZENES            1 0.079 UGM./M+3
PHENOL                       1 0.12 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                 2 0.090 UGM./M+3
ETHYL BENZOIC ISOMERS  EST 0.10 UGM./M+3
PENTANDIOIC ACID       EST 3.5 UGM./M+3
HEXANDIOIC ACID             4 4.6 UGM./M+3
BENZOYL ION (ARBITRARY)     1.1 UGM./M+3

ACIDS (AS ACETIC ACID)  EST 6.0 UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)     3.0 UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  0.75 UGM./M+3
PIPERIDINES (+ISOMERS)  EST 0.064 UGM./M+3
CARBAZOLE                   L 0.033 UGM./M+3
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PAGE 002.
ACRIDINE & ISOMERS        L 0.037 UGM./M+3
QUINOLINE (-INTERFER?)    L 0.017 UGM./M+3
NITRONAPHTHALENE        EST 0.012 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         5.2 UGM./M+3
C5H10O3 ISOMERS         EST 0.29 UGM./M+3
HCO(CH2)4ONO2+ISOMERS   EST 0.16 UGM./M+3
HCO(CH2)5COONO2+ISOMERS EST 0.32 UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 0.67 UGM./M+3
C6H8O2 ISOMERS          EST 1.2 UGM./M+3
C7H10O2 ISOMERS         EST 0.64 UGM./M+3
C5H8O3 ISOMERS          EST 0.56 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C9H14O4 (PINIC ACID?)   EST 0.26 UGM./M+3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 11  UGM./M+3
AMMONIUM CHLORIDE         3 1.8 UGM./M+3
AMMONIUM NITRATE          2 7.1 UGM./M+3
SODIUM NITRATE            1 0.095 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.55 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.14 UGM./M+3
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SEATTLE 2310 10/18/74 TO 1250 10/19/74 PDT

 SEU 9
FILE NO. 0003, FIT TOL. 005 (MILLIMASS) RUN 0071 TO RUN 0105
DATE 750821, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 205E +2 CUBIC METERS, ALIQUOT=0. 800E -1
INST. SENSITIVITY=0. 470E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES             CL 1.5 UGM./M+3
ALKANES LOW MW            CL 0.27 UGM./M+3
ALKANES MED. MW           CL 0.55 UGM./M+3
ALKANES HI MW             CL 0.37 UGM./M+3
TOTAL ALKENES                2.1 UGM./M+3

ALKENES LOW MW            CL 0.29 UGM./M+3
ALKENES MED. MW           CL 0.91 UGM./M+3
ALKENES HI MW             CL 0.93 UGM./M+3
ALPHA PINENE                 2.1 UGM./M+3
TERPENES AS PINENE        CL 0.70 UGM./M+3

XYLENES,MON SUB BENZENES CL 0.63 UGM./M+3
XYLENES, ETHYL BENZENE    CL 0.18 UGM./M+3
ALKYL BENZENES C9H12      CL 3.0 UGM./M+3
ALKYL BENZENES C10H14     CL 0.33 UGM./M+3
BIPHENYL                   1 0.011 UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                1 0.10 UGM./M+3
METHYL NAPHTHALENES+INT.   L 0.10 UGM./M+3
ALKYL NAPHTHALENES C12H12 L 0.013 UGM./M+3
PYRENE & ISOMERS C16H10    L 0.023 UGM./M+3
PERYLENE, ISOMERS C20H12   L 0.066 UGM./M+3

BENZOPERYLENE+INTERFER.    E 0.080 UGM./M+3
DIBENZANTHRACENES C22H14   E 0.049 UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
CRESOLS (BENZYL ALCOHOL?)CL 0.011 UGM./M+3
PHENOL+NO2,CHO,CO2H?   EST. 0.29 UGM./M+3
DIHYDROXYBENZENES          1 0.23 UGM./M+3
BENZALDEHYDE (+INTERF.)    L 0.016 UGM./M+3
PHENOL                     1 0.015 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID               2 0.19 UGM./M+3
METHYL BENZOIC ISOMERS EST. 0.26 UGM./M+3
ETHYL BENZOIC ISOMERS  EST. 0.082 UGM./M+3
PENTANDIOIC ACID       EST. 3.7 UGM./M+3
HEXANDIOIC ACID            4 4.0 UGM./M+3

METHYLHEXANDIOIC ACID      1 2.5 UGM./M+3
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PAGE 002
BENZOYL ION (ARBITRARY)     0.91 UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 5.1 UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CH2CN FRAGMENT (RELATIVE)   0.18 UGM./M↑3
CONH FRAGMENT (RELATIVE)    1.7 UGM./M↑3
C3H5N2 FRAGMENT (RELATIVE)  0.52 UGM./M↑3
CH2NO3 FRAGMENT (RELATIVE)  0.14 UGM./M↑3
PYRIDINE + PYRIDYL CPDS   L 0.046 UGM./M↑3

PIPERIDINES (+ISOMERS)  EST 0.23 UGM./M↑3
CARBAZOLE                 L 0.16 UGM./M↑3
ACRIDINE & ISOMERS        L 0.022 UGM./M↑3
QUINOLINE (-INTERFER?)    L 0.032 UGM./M↑3
NITRONAPHTHALENE        EST 0.0065 UGM./M↑3

PYRIDINE SULFATE        EST 0.19 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C7H12O4 (METHYL ADIPIC) DUP 2.0 UGM./M↑3
C8H5O3 (PHTHALATES)         2.1 UGM./M↑3
C6H10O3 ISOMERS         EST 0.078 UGM./M↑3
C5H10O3 ISOMERS         EST 0.15 UGM./M↑3
HOOC(CH2)5ONO2          EST 0.20 UGM./M↑3

HOOC(CH2)4ONO2          EST 0.19 UGM./M↑3
HCO(CH2)6ONO2+ISOMERS   EST 0.68 UGM./M↑3
HCO(CH2)5ONO2+ISOMERS   EST 0.10 UGM./M↑3
HCO(CH2)4ONO2+ISOMERS   EST 0.10 UGM./M↑3
HOOC(CH2)3COONO2        EST 0.13 UGM./M↑3

HCO(CH2)5COONO2+ISOMERS EST 0.31 UGM./M↑3
HCO(CH2)4COONO2+ISOMERS EST 0.30 UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C6H6O2 ISOMERS          EST 1.9 UGM./M↑3
C6H8O2 ISOMERS          EST 1.4 UGM./M↑3
C7H10O2 ISOMERS         EST 0.71 UGM./M↑3
C5H8O3 ISOMERS          EST 0.35 UGM./M↑3
C6H8O4 ISOMERS          EST 0.28 UGM./M↑3

C7H7NO4 ISOMERS         EST 0.060 UGM./M↑3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS
C8H12O4 (NORPINIC ACID?)EST 0.091 UGM./M↑3

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 8.8 UGM./M↑3
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PAGE 003.
AMMONIUM CHLORIDE         3 1.4 UGM./M+3
AMMONIUM NITRATE          2 6.3 UGM./M+3
SODIUM NITRATE            1 0.21 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
LINDANE                 EST 0.25 UGM./M+3
C5H5CL (HEPTACHLOR?)    EST 0.24 UGM./M+3
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SEA 2 AUTO EXHAUST, WITHOUT CONVERTER, IDLE

 SEA 2 AUTO EXHA UST
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0036 TO RUN 0069
DATE 750819, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 280E -1 CUBIC METERS, ALIQUOT=0. 230E -1
INST. SENSITIVITY=0. 450E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 6700. UGM./M+3
ALKANES LOW MW           CL 3000. UGM./M+3
ALKANES MED. MW          CL 1900. UGM./M+3
ALKANES HI MW            CL 280. UGM./M+3
TOTAL ALKENES               6800. UGM./M+3

ALKENES LOW MW           CL 3300. UGM./M+3
ALKENES MED. MW          CL 2900. UGM./M+3
ALKENES HI MW            CL 1500. UGM./M+3
ALPHA PINENE                4300. UGM./M+3
TERPENES AS PINENE       CL 1200. UGM./M+3

XYLENES,MON SUB BENZENES CL 640. UGM./M+3
XYLENES, ETHYL BENZENE   CL 520. UGM./M+3
ALKYL BENZENES C9H12     CL 8300. UGM./M+3
ALKYL BENZENES C10H14    CL 940. UGM./M+3
DIPHENYL METHANE+ISOMERS CL 87. UGM./M+3

DIPHENYL ETHANE & ISOMERS L 160. UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE              1 170. UGM./M+3
METHYL NAPHTHALENES+INT. L 79. UGM./M+3
ALKYL NAPHTHALENES C12H12 L 130. UGM./M+3
ANTHRACENE-PHENANTHRENE  2 13. UGM./M+3
PYRENE & ISOMERS C16H10  L 320. UGM./M+3

CHRYSENE, ISOMERS C18H12 L 100. UGM./M+3
PERYLENE, ISOMERS C20H12 L 140. UGM./M+3
BENZOPERYLENE+INTERFER.  E 230. UGM./M+3
DIBENZANTHRACENES C22H14 E 1000. UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
BENZALDEHYDE (+INTERF.)  L 120. UGM./M+3
PHENOL                   1 24. UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID             2 260. UGM./M+3
BENZOYL ION (ARBITRARY)     1700. UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    340. UGM./M+3
PIPERIDINES (+ISOMERS) EST 41. UGM./M+3
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PAGE 002.
ACRIDINE & ISOMERS        L 25. UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C5H8O3 ISOMERS          EST 97. UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 400. UGM./M+3
AMMONIUM CHLORIDE         3 250. UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 510. UGM./M+3
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SEA 6 AUTO EXHAUST, WITH CONVERTER, IDLE

 SEA 6 (3) AUTO EXHA
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0071 TO RUN 0105
DATE 750819, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 282E -1 CUBIC METERS, ALIQUOT=0. 280E -0
INST. SENSITIVITY=0. 450E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES            CL 77. UGM./M+3
ALKANES LOW MW           CL 26. UGM./M+3
ALKANES MED. MW          CL 14. UGM./M+3
ALKANES HI MW            CL 7.3 UGM./M+3
TOTAL ALKENES               64. UGM./M+3

ALKENES LOW MW           CL 6.1 UGM./M+3
ALKENES MED. MW          CL 19. UGM./M+3
ALKENES HI MW            CL 4.0 UGM./M+3
XYLENES,MON SUB BENZENES CL 12. UGM./M+3
ALKYL BENZENES C9H12     CL 19. UGM./M+3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
BENZOPERYLENE+INTERFER.    E 45. UGM./M+3
DIBENZANTHRACENES C22H14  E 82. UGM./M+3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS
PHENOL+NO2,CHO,CO2H?   EST 5.1 UGM./M+3
PHENOL                   1 6.8 UGM./M+3

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID             2 66. UGM./M+3
BENZOYL ION (ARBITRARY)     160. UGM./M+3
ACIDS (AS ACETIC ACID)  EST 27. UGM./M+3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
CONH FRAGMENT (RELATIVE)    98. UGM./M+3
C3H5N2 FRAGMENT (RELATIVE)  22. UGM./M+3
PYRIDINE + PYRIDYL CPDS   L 1.0 UGM./M+3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)         730. UGM./M+3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS
C7H7NO4 ISOMERS         EST 2.8 UGM./M+3

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
AMMONIUM CHLORIDE        3 1.7 UGM./M+3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)    EST 31. UGM./M+3
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SEA 7 AUTO EXHAUST, WITH CONVERTER, HI RPM

 SEA 7 AUTO EXHA UST
FILE NO. 0002, FIT TOL. 005 (MILLIMASS) RUN 0106 TO RUN 0140
DATE 750819, PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 940E -2 CUBIC METERS, ALIQUOT=0. 370E -0
INST. SENSITIVITY=0. 450E +4
CHECK HEIGHT RATIO=0. 500 (FRACTION), SMOOTHED

     CPD. FILE 0051, DATE 082575,  HYDROCARBONS
TOTAL ALKANES               CL 240. UGM./M↑3
ALKANES LOW MW              CL 120. UGM./M↑3
ALKANES MED. MW             CL 58. UGM./M↑3
TOTAL ALKENES                  170. UGM./M↑3
ALKENES LOW MW              CL 37. UGM./M↑3

ALKENES MED. MW             CL 78. UGM./M↑3
ALKENES HI MW               CL 60. UGM./M↑3
TERPENES AS PINENE          CL 14. UGM./M↑3
XYLENES,MON SUB BENZENES CL 20. UGM./M↑3
XYLENES, ETHYL BENZENE      CL 12. UGM./M↑3

ALKYL BENZENES C9H12        CL 57. UGM./M↑3

     CPD. FILE 0052, DATE 082575,  POLYCYCLIC HYDROCARBONS
NAPHTHALENE                   1 4.1 UGM./M↑3
DIBENZANTHRACENES C22H14  E 55. UGM./M↑3

     CPD. FILE 0053, DATE 082575,  AROMATIC OXYGENATED CPDS

     CPD. FILE 0054, DATE 082575,  CARBOXYLIC ACIDS
BENZOIC ACID                  2 94. UGM./M↑3
BENZOYL ION (ARBITRARY)        210. UGM./M↑3
ACIDS (AS ACETIC ACID)  EST 47. UGM./M↑3

     CPD. FILE 0055, DATE 082575,  NITROGEN COMPOUNDS
PIPERIDINES (+ISOMERS)  EST 9.0 UGM./M↑3

     CPD. FILE 0056, DATE 082575,  POSSIBLE SEC. DIFUNCTIONALS
C8H5O3 (PHTHALATES)             1500. UGM./M↑3

     CPD. FILE 0057, DATE 082575,  TENTATIVE TOLUENE PRODUCTS

     CPD. FILE 0058, DATE 082575,  TENTATIVE TERPENE PRODUCTS

     CPD. FILE 0059, DATE 082575,  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 110. UGM./M↑3

     CPD. FILE 0060, DATE 082575,  CHLORINATED COMPOUNDS
C5H5CL (HEPTACHLOR?)      EST 140. UGM./M↑3
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WASHINGTON U  IMPACTOR 0800-0950 8/20/74 CDT

 SLW 65 IMPACTOR  1.8 HRS
FILE NO  0042  FIT TOL  003 (MILLIMASS) RUN 0491 TO RUN 0525
DATE 032075  PASS3 ERROR 10 (MILLIMASS)
TOTAL SAMPLE=0. 280E +1 CUBIC METERS  ALIQUOT=0. 330E +0
INST. SENSITIVITY=0. 230E +5
CHECK HEIGHT RATIO=0. 500 (FRACTION)  SMOOTHED

      CPD  FILE 0051. DATE 032575.  HYDROCARBONS
TOTAL ALKANES              CL 0.044 UGM /M+3
ALKANES LOW MW             CL 0.0074 UGM /M+3
ALKANES MED. MW            CL 0.0044 UGM /M+3
TOTAL ALKENES                 0.033 UGM /M+3

      CPD  FILE 0052. DATE 032575.  POLYCYCLIC HYDROCARBONS

      CPD  FILE 0053. DATE 032575.  AROMATIC OXYGENATED CPDS

      CPD  FILE 0054. DATE 032575.  CARBOXYLIC ACIDS
ACIDS (AS ACETIC ACID)  EST 0.012 UGM /M+3

      CPD  FILE 0055. DATE 032575.  NITROGEN COMPOUNDS
C3H5N2 FRAGMENT (RELATIVE)  0.005 UGM /M+3

      CPD  FILE 0056. DATE 032575.  POSSIBLE SEC. DIFUNCTIONAL
C8H5O3 (PHTHALATES)           0.13 UGM /M+3

      CPD  FILE 0057. DATE 032575.  TENTATIVE TOLUENE PRODUCTS

      CPD  FILE 0058. DATE 032575.  TENTATIVE TERPENE PRODUCTS

      CPD  FILE 0059. DATE 032575.  INORGANIC COMPOUNDS
SULFATES AS SULFURIC ACID 4 [illegible] 7 UGM /M+3
AMMONIUM CHLORIDE          3 0.10 UGM /M+3
AMMONIUM NITRATE           2 0.46 UGM /M+3

      CPD  FILE 0060. DATE 032575.  CHLORINATED COMPOUNDS
LINDANE                  EST 0.29 UGM /M+3
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